

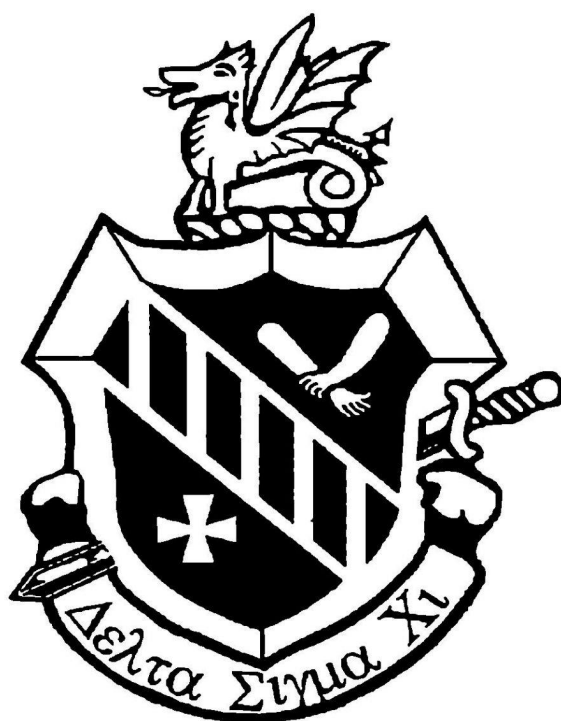
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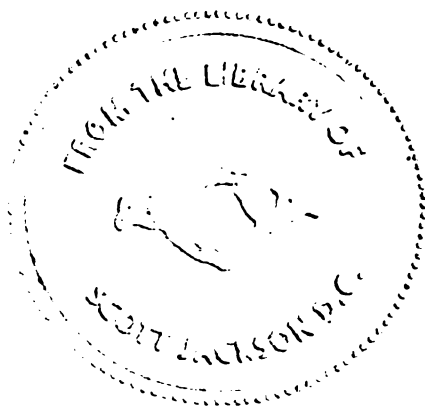
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The Science of Chiropractic

CONTAINING

A Series of Lectures and Other Scientific
Material Discovered or Developed
and Delivered

BY

B. J. PALMER, D. C., Ph. C.

AND

Used As a Text-Book

AT

THE PALMER SCHOOL OF CHIROPRACTIC

"CHIROPRACTIC FOUNTAIN-HEAD"

DAVENPORT, IOWA, U. S. A.

1920

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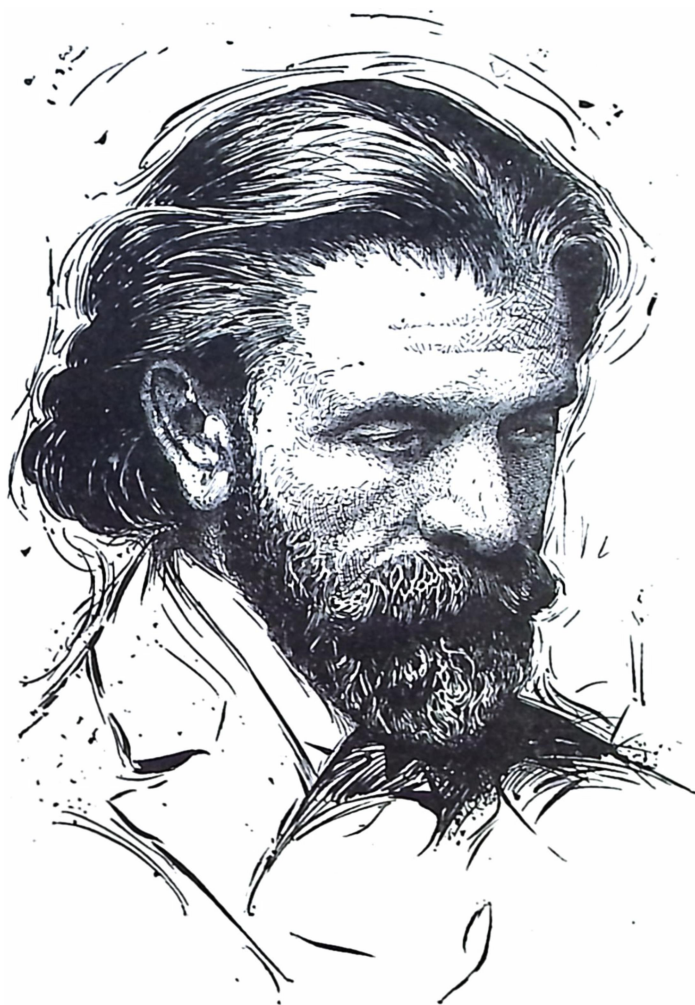
B. J. PALMER, D. C., Ph. C.
DAVENPORT, IOWA
U. S. A.

L. H. Maibach



M. H. Palmer, D. C., Ph. C.

To my wife, Mabel Heath
Palmer, D. C., Ph. C., who has
labored and assisted this pro-
duction, is this work dedicated.



B. J. Palmer, D. C., Ph. C.

Preface to Third Edition

The third edition of Vol. II is practically a reprint of the Second Edition with sufficient revision to bring it up to date, especially in the Metric System and Equations.

There are certain parts of the work that may seem rather voluminous, but it must be remembered that subjects of such recent origin and of such original character must be dealt with in detail and every phase of the work exhausted and every question that might arise in the mind of the student must be anticipated and answered.

The first edition of Vol. II was published in 1907. The second edition in 1910, in which was embodied that which was originally contained in the first edition and also that which was contained in Vol. IV published in 1908, but at that time much was added as an elaboration and many of the former subjects were broadened, specially, "Sympathetic" Nervous System, Reflex Action and Serious Circulation. Since then a great deal of research work has been done which has led to many discoveries, but withal, the original principles remain the same, showing that Chiropractic is based upon Law, and Law always remains the same.

It is the desire of the author, so far as practicable, to utilize each book of the Chiropractic Library for a separate subject. There are still a number of other books that have been written, but as yet not published, but will be published when Chiropractic has advanced sufficiently in public favor to warrant their publication. However, a great many other books and pamphlets have been published in the last few years on Scientific and Philosophical Subjects.

The purpose of this book is to set forth the principles of Chiropractic, its distinctive features and the practical application of its philosophy to conditions within the body. This purpose we hope will be fulfilled in this edition as we have reason to believe it has been in the last from the fact that successive Editions have been made necessary by the sale of the former.

B. J. PALMER, D.C., Ph.C.

Author.

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Collaborator.

The Embryo

It is appropriate, in this first lecture, that I introduce the *first person to receive a Chiropractic adjustment*. He is comparatively a young man and Chiropractic a new science, but in a few years Harvey Lillard will be honored.

At the time father began evolving Chiropractic he had plenty of material which worked into his hands as it was needed. Chiropractic was at this time in such crude stage that if this—the first case—had failed, he would have stopped further investigation. “Harvey, how *long* have you been deaf?” was father’s inquiry. “Seventeen years,” was the reply. “If I can but prove my thought that a subluxation of a vertebra must exist to cause this disease in *this man*, I will have opened a new field, one in which I can demonstrate it in similar cases. When asked how such was caused, Harvey said, “I was in a stooped, cramped position when I felt something give way between my shoulders. My hearing left immediately.”

To prove the second thought (all subluxations are caused by falls, wrenches, jerks and strains) meant to give them life. “Let me see your spine.” Close examination told of a subluxation which was prominent and how this disease, at least, was produced by strain. Had it been, as many cases today, with *minor* subluxations, father would have been disappointed and, in all probability, dropped further study. In September, 1895, he gave the first adjustment. With the second, Harvey was hearing. Twelve years later, in the lecture hall of *The P. S. C.*, I asked, “Have you had any deafness since, Harvey?” “None at all,” is the reply. The characteristic and quicker results attained in this case over the slow magnetic he was using, made father advance his studies to other diseases and to determine, if such was possible, one specific applicable to all diseases. The philosophy, as it is today, tells the outcome of years of labor averaging 18 to 20 hours per day. It does seem that when grand movements are in the embryo some men are endowed with peculiar faculties. Their every move is controlled by a something which exists in and around them. You have noticed some persons seem to receive help from what appears supernatural sources.

Biology is the structure of *expressed* life; morphology the research of *structure*, and physiology the knowledge of function of living things.

Biology is the study of life, i. e., students of biology have always said that it was the study of life, but I would prefer to say that: “Biology is the study of life in three stages—creation, transmission and expression. When life has been expressed in the third stage, that shows positively that it has gone through the second and first as well. A biologist is a spiritualist—anything but a materialist!

When we say that biology is the study of expressed life, it means that we recognize creation, transmission and expression.

Morphology is the research of structure and physiology the knowledge of function of living things. We cannot have functions in a dead thing. It takes in how actions are caused and what caused them.

The subject selected for a lecture tonight is a broad one and I wish to herewith quote a few passages from no less an author than Ernst Haeckel, who in his works on "The Evolution of Man" and in the preface thereof, says: "Theologians—forgetting the commonest facts of our individual development—spoke with the most distain of the theory that a Luther or a Goethe could be the outcome of development from a tiny speck of protoplasm. Today its conclusion is accepted by influential clerics, such as Dean of Westminster, and by almost every biologist and anthropologist of distinction in Europe." His contention was to establish that woman was not made from the rib of man, but that before she became a being had to pass through all the evolutionary methods which established her identity. This point settled, we are ready to establish the development of both sexes.

"What is the embryo?" (*en*, in, *bryo*, to swell.) It is that *expansion* of germinal cells into a physical form which is taking place within the uterus. We will commence at fundamental, in our imagination, and create a mental and physical human being. I shall start at that basis which exists as a practical fact. Any question can be led where it must be answered "I don't know."

Haeckel words this subject very nicely when he says, "As an illustration of this curious state of things, it may be pointed out that most of what are considered to be 'educated' people do not know that every human being is developed from an egg, or ovum, and that the egg is one simple cell, like any other plant (seed) or animal egg. They are equally ignorant that in the course of the development of this tiny round cell there is first formed a body that is totally different from the human frame, and has not the remotest resemblance to it. Most of them have never seen such an human embryo in the earlier period of its development, and do not know that it is quite indistinguishable from other animal embryos. At first the embryo is no more than a round cluster of cells, then it becomes a simple hollow sphere, the wall of which is composed of a layer of cells. Later it approaches very closely, at one period to the anatomic structure of the lancelet, afterwards to that of a fish, and again to the typical build of the amphibia and mammals. As it continues to develop, a form appears which is like those we find at the lowest stage of mammal-life (such as duck-bills,) then a form that resembles the marsupials, and only at a late stage a form that has a resemblance to the ape; until at last the definite human form emerges and closes the series of transformations.

"The series of forms through which the individual organism passes during its development from the ovum to the complete

bodily structure is a brief, condensed repetition of the long series of forms which the animal ancestors of the said organism, or the ancestral forms of the species, have passed through from the earliest period of organic life down to the present day.

"The fact that the embryos of man and the dog are, at a certain stage of their development, almost indistinguishable, was also denied. When we examine the human embryo in the third or fourth week of its development we find it to be quite different in shape and structure from the full-grown human being, but almost identical with that of the ape, the dog, the rabbit, and other mammals, at the same stage of ontogeny. We find a bean-shaped body of very simple construction, with a tail below and a pair of fins at the sides, something like those of a fish, but very different from the limbs of man and the mammals. Nearly the whole front half of the body is taken up by a shapeless head without face, at the sides of which we find gill-clefts and arches as in the fish. At this stage of its development the human embryo does not differ in any essential detail from that of the ape, dog, horse, ox, etc., at a corresponding period. This important fact can easily be verified at any moment by a comparison of the embryos of man, the dog, rabbit," etc.

The child is the evolution of generations. When this process started I don't know. I shall aim, therefore, to confine my remarks to that portion of this progression that we have before us. A male and female must exist in specie to propagate their kind. In the human family the male produces a spermatozoon, which is characteristic in shape of a tadpole. It has enlarged head with a tail. The female gives forth her proportionate share—ovum—viz., virility and quantity considered. The male may eject 66 per cent and be weak and the balance, or 33 per cent, would be strong and more than compensate for the excess of its opposite. The sex, then, is determined by the excess of sex elements, considering quantity comparative with virility. This is round in its shape. The male is the giver and the female the receiver. At the time the spermatozoon is ejected the female brings to the front an ovum from the ovary. Some claim that they meet in the Fallopian Tubes, others the vagina, but it is more reasonable to believe they would unite where they intend to stay—the fundus of the uterus. The majority of authorities concur with the latter. After contact, the fibers of the walls of the ovum divide to make an opening for the reception of the spermatozoon. Here is where the tail is of service. Acting as a propeller, it works through the fibres into the ovum. Immediately after the frayed edges fabricate and heal. The product is a microscopical unit, one-half residing within the other half. Under the action of normally increased heat, the next process is one of fusion, so that the two sex elements blend into the future characteristic child. At this stage the spermatozoon and ovum lose their identities and that of the third party becomes a reality—the embryo.

The first noticeable change is the "swelling" of germinal, embryonic cells into the blastoderm, which expands into two, between which, at a later period, is created the center. (Blastoderm—Germinal membrane or visicle; membranous sac in fecundated ovum, consisting of nucleated cells or blastomeres formed by [expansion], original structure from which embryo is developed.) *Dunglison*. Each contains individual characteristics differing from the other. This outer wall is termed the epiblast; the center one, mesoblast; and the most internal one, the hypoblast. Let us see why a "blast." It is that which takes a character and transforms the same substance into different form. But embryological research into the gradual appearance and the formation of this important system of organs yields the most astounding and significant results.

Dr. Baker, M. D., in *The Medical Brief* (April, 1909), under an article, "Psychological Therapeutics," says:

"Today we are in a realm of the infinitely little. The impulse which the study of a radium and its compounds gave to chemistry and the new view it gave us as to the composition of matter seemed almost to dispute the idea of the combination of energy, which Sir Elihu Thompson gave us, and which we have accepted so long. That grand old man, however, showed the real scientific spirit when this came about, saying that this was the first evidence seeming to dispute it and he would investigate, not that the men who proposed the new idea were unique and unbelievable, but *he would investigate*. These new facts seem to put us almost in a new world. Now we talk about the atoms as being really little systems, which can be compared to our sidereal system, each being composed of myriads of more minute particles which are moving in relatively great spaces with a speed and alteration almost too great to be grasped. There is no greenness in the grass, no redness in the rose, no hardness in the diamond—what our sensations report to our consciousness as greenness, redness, hardness, being the result of myriads of unlike motions, some of them occurring as many times in one second as there are seconds in thirty million years.' The vibrations of particles of hydrogen gas occur something like seventy million a second. We have measured some of these tiny waves and known, for instance, that the tri-ultra-violet ray (Roentgen) is .014 of a micron long, a micron being 1-25,000 of an inch in length.

"We know that the ovum of a mammal is about 1-50 of an inch in diameter, yet packed into this tiny mass are so many particles that if one were lost each second they would not be all gone for 5,600 years."

The embryo as it exists, after fusion, represents the future adult. I want you to know that the embryo and foetus are, when expanded, the future individual. The process which we shall portray is of simple cellular expansion. Each layer in performing this action blasts its individual structure. The hypoblast expands into the epithelium of the alimentary and respiratory tracts,

also the cellular structure in digestive glands. The epiblast makes the epidermis and nervous system, the mesoblast forming the remainder or the bulk between the two. It is impossible, in studying physiology of the embryo or foetus to demonstrate where one tissue breaks and another begins. The process of development is one of interblending; the intermixture of one into the other. The physiology of these tissues, as we shall study it, is very delicate when individualized.

How does each blast of condensed germinal cells expand to be the superficial skin of a mortal when it is the size of a pinhead in the first or blastodermic stage? *How* can they expand into a full adult? This epiblast has within its walls an intercellular tissue. Within this are many germinal visicles. What is a germinal visicle? It is that enclosed tissue containing multitudinous germs. ("Germ—Rudiment of new being not yet developed. *Dunghlison*.") It has a nucleus and in its center is a nucleolus; divide this and we have many nucleoli. Each nucleolus is a germinal spot. If you can imagine that each germinal vesicle contains millions of germs and each in turn pursues the expansion process, you can vaguely grasp some knowledge of how the child matures to an adult. Its process is slow and steady; no one day or hour marks the difference between embryo and foetus, foetus to infant; infant to child; child to boy; boy to young man; or young man to manhood.

Then starts expressed life with an allotted number of germinal cells. The expansive process begins and continues until all germs have been expanded and utilized. Granted that a person *could live* without subluxations, pressure upon nerves or the hindrance of the transmission of currents, he would live the "natural" life and die the "natural" death, which would be when all cells have been brot forth from the reserve stock and utilized. Many a person dies of "old age" minus any pathological conditions.

He gradually expands into the various attitudes before the world. I will allow, as it were, a germinal cell to expand in your imagination. It is now confined within well defined cellular walls, but it has an individuality, expresses thots. It will progress to a centrosome or center of attraction at the periphery. The walls break to permit freedom to show its makeup and discriminating quality. As it enlarges to and outside of this surface, it is proportionately adding liquid particles and, like a sponge, the more it absorbs the larger in size and the sooner it is a matured cell. The reticulum expansion creates a space filled with serum, thus this process increases size and weight and changes form.

What does a cell look like? A tissue cell, whether bone or other constituency, has for general structure a network of tissue called protoplasm, the *interstices* of which are now filled with serum. *What was formerly in collapsed form is now enlarged.* Contained within each visicle—remembering that each blast has many visicles—are millions of germs. When each have expanded, we have the completed epidermis of an infant. True, the process

is slow, but so long as there is a reserve stock of germinal cells to replace the utilized ones, life exists. When the retained store is spent, death is the result. *The P. S. C.* is the first school and Chiropractic the first philosophy that has brought such explanations to the front.

As the epiblastic germs are enlarging, the same process is taking place within the other blasts. As each matures it is placed according to character and function. The expansion is not alone in size and quality and character. There are tissue discriminations and with a harmonious process of expansion, discrimination and appropriate deposition we have in the period of 280 days, or, as generally known, nine months, the completed *normal* object—the coveted child—to love, caress and adore.

What is behind this embryo that makes it expand? Do these actions happen, come haphazardly? Do they appear at random as the product of luck? To say “Reflex Action” or “Sympathetic Nervous System” is incomprehensible and not scientific. This body, physically, has not within itself the property of self-government. Let us find a satisfactory answer to these questions. The child is a product of what? *Certainly of an intelligence* which is—cause and effect. Is it the product of the *mother's* education, be she 18 or 40? You will agree, the youthful mother can deliver as perfect, handsome, cheerful, healthy and intelligent a baby as her older sisters. Is the mother, with her *limited* education, perhaps never attended school, the creator of her child? Did *she* direct the deposition of these various tissues and place them where they are? Could *she* determine and demand the sex desired? No! We must look to an *intelligence* greater than that possessed by the educated mother even tho she be a university graduate.

In this connection it is interesting to see how *Haeckel* accounts for the “phenomena” in the study of embryological development. He states “It means in the whole of philosophy that tendency which we call monistic, in opposition to the dualistic, which has hitherto prevailed, must be accepted. At this point the science of human evolution has a direct and profound bearing on the foundations of philosophy. (Monism is neither purely materialistic nor purely spiritualistic, but a reconciliation of these two principles, since it regards the whole of nature as one, and sees only efficient causes at work in it. Dualism, on the contrary, holds that nature and spirit matter and fore, the world and God, inorganic and organic nature, are separate and independent existences.) Modern anthropology has, by its astounding discoveries during the second half of the nineteenth century, compelled us to take a completely monistic view of life. Our bodily structure and its life, our embryonic development and our evolution as a species, teach us that the same laws of nature rule in the life of man as in the rest of the universe. For this reason, if no others, it is desirable, nay, indispensable, that every man who wishes to form a serious and philosophic view of life and above

all, the expert philosopher, should acquaint himself with the chief facts of this branch of science.

"At the same time I must admit that our knowledge of the evolution of functions is very far from being complete as our acquaintance with the evolution of structures. One might say, in fact, that the whole science of evolution hardly exists even in name. * * * It is so intricate that most men still look upon the mind as something supernatural and that cannot be explained on mechanical principles.

"They throw light first of all on the 'natural history of creation,' then on psychology, or the 'science of the soul' and through this on the whole of philosophy. And as the general results of every branch of inquiry are summed up in philosophy, all the sciences come in turn to be touched and influenced more or less by the study of the evolution of men."

What is the first organ built? I say *built* because the body is the finest mechanism. Nothing is "built," created or made without a guiding hand. The incipient expansion is the blastoderm and the first from that, the three blasts from which is expanded the first organ—the embryonic brain and nervous system. From this period on it is a constant, direct communication between the mother Innate to what will, at birth, be the Innate brain of the child. It is this guiding mentality that matures the form of the physical child—the embryo to foetus and foetus to birth. It is, as it were, the expanding or unfolding process of the bud to the most beautiful rose. This embryonic brain, at birth, becomes the Innate brain.

The foetus has a life but it is based upon what is termed stationary life, that is, the same life as is found in a corpse, alive and yet not alive in the sense of the circulation of intellectual currents. Again I wish to contradict this, while the foetus has a circulatory current of intellectual units they come from the mother and are dependent upon her for them. At birth the child becomes a unit, that is becomes an independent factory and manufactures its own currents and circulates them accordingly. When with the mother it was dependent, after birth it becomes independent of the mother's innate. In the former the mother brain manufactures the currents for the child, after birth the child makes its own. *Now* is when this inherent power takes possession and proceeds to live within. He or she is as capable, complete and will direct the functions of that infant as thoroly then as in adult life. It is called instinct, oftentimes, for want of a better knowledge. Chiropractors supply the missing link; definitely elucidate its mysteries and demonstrate its existence.

How great and intelligent such a controlling mind must be that can command and execute millions of cells to expand in proper form, shape and discriminate between them in texture, function and they have the ability to place each where it must be. This distinction continues until we have one arm, its mate, then a foot and its opposite; in like manner the process simultaneously

continues thru the three blasts, expanding the embryo proportionately in all directions, hence the future child advances no one place more than another, after the embryonic brain is in action.

As you know, after birth, nothing is added; if you should have a hand or arm cut off, another would not grow out again. The process of growing a hand goes on in the uterus of the mother—a process which can not be changed in any way after the child is born, and yet before birth the insignificant thing which you call “instinct” did all this. “Great things come from insignificant sources!” Doesn’t look reasonable. It is a great study to watch the development of this really great thinker which is doing things. This great thinker is the thing you would humble by dubbing it “Reflex action.” Do reason and compare. As great as educated mind is, it can’t add a finger nail to the finger already created. This great power creates not only one finger nail, but twenty of them, at the same time growing 100,000 hairs on your head, perhaps mending two or three broken bones, attending to the reparatory work of the body, etc., all at one time. Compare this with *your* educated mind and see whether you can begin to do one portion of the work that your better self is doing. Innate works 24 hours in the day, and if educated works 12 hours a day, you are exhausted.

Man tries to find how sex is determined; what is the secret that produces male and female? Where is *he* who has an infallible rule?

Cells continue taking their places until the matured normal *form* has been reached. The mother Innate has completed her labors; she places her thots into expression; the quickening process is started and maintained until the child is expelled.

You ask the question, which precedes, life or breath? Life is necessary to make breath possible, again, it was dead matter until breath took place. I don’t know. Our child is, on the outside, an independent unit.

The process of birth is the maturing to *shape*. That following the maintaining or keeping to a normal the form as given before birth. By accident, you remove a large portion of a member; the arm will never return in form but the stump and sore will be healed. “Healed,” yes, but how and what is understood by that? A physician uses many names he is intellectually ignorant of, altho scientific in the use and abuse of terms. Even in the adult we have blasts and germinal cells and at the immediate time that injury took place there are germs, in process of expansion being carried to the wound, placed side by side until the external surface is covered by new tissue cells of the same character. As long as Innate can continue to use the brain as a medium for sending mental impulses to germinal cells and can, uninterruptedly, perform this action, life—in its fullest entirety—exists.

Coördination must exist between the mental and brain and brain system. The process of healing will not and cannot take place if there be complete interruption between mental impulses

and their conveyors, the nerves. If there be such, then incoördination, a lack of harmony or non-expression of mental impulses, exists.

Chiropractic is philosophy developed. Death is the entire dissolution between mental and physical. What could and would take place if I were to cut or produce pressure upon nerves? A physician would say "degeneration." Some fractured femora heal quickly and others cannot be *made* to do so. What is the cause? Inco-ordination, and the physician does not know where. There is only a partial harmony between the mental and physical. Pressure upon nerves restricts the quantity of cellular expansion; thus there can be no healing of the wound. Disease is in proportion to the degree of pressure upon nerves.

Disease is in proportion to the quantity of mental impulses which are hindered in their transmission by the degree of pressure upon nerves. If 90 per cent of the pressure exists, 10 per cent of current is hindered in transmission—it is almost, but not quite, death. If there is but 50 per cent of current there, then one-half is and one-half is not doing its duty.

This 100 per cent is subject to fluctuation. When sitting or relaxing, I am using 100 per cent of current in all portions of the body, if I am normal. When I get up and walk around, I am still using 100 per cent—always 100 per cent, but the 100 per cent standard fluctuates within its range. I run a mile. (Time is a factor in addition to quantity.) As long as the amount of current, per the same space of time, meets normal adaptation, then it is 100 per cent regardless of whether the person is sitting, walking or running. As long as creation and expression meet you have completed a normal cycle, which is equal to a standard of 100 per cent.

We have studied the process necessary to give to a mass of tissue its *normal* form. Let us briefly look into (altho a lecture by itself) that which produces abnormal forms or prenatal monstrosities.

Under the subject of the embryological development of the form of the future child, we have studied all of that which goes to make a child normal in form. We have found that we have a normal creation. Again we conclude that the product is normal in form and that there must have been normal creation before transmission and expression. A law is a term used to express a condition which can never be read by man; expresses certain unalterable conditions which are observable by the educated intelligence of man. Then the law is simply the observance of things which do not change; the law of creation is one of these; one of the fixed quantities upon which the world rests.

The law of creation or embryological development is always the same. Sometimes things stand in the way of the fullest expression of that law. That is termed a perversion of the law of expression—not that the law has been in any interfered with. Because I have a disease of some sort does not follow that Innate Intelligence has in any way been changed—it remains the same.

but an obstruction brings about a perversion of the law of expression, so that in studying abnormal forms, which we shall briefly look into this morning, we are studying the actual conditions which result from this perversion.

Were you to ask me for a definition of pre-natal monstrosities (post-natal, also) I would say that a pre-natal monstrosity is that expression of the perversion of a normal creative type; as creation is normal so must transmission be to the point of interference. From that point on the law remains the same, but the function of the media through which the law is taking effect has been perverted.

The connection, direct, between the mother's Innate and the embryonic physical brain is by means of the umbilicus, thru which, are nerves bearing direct messages. If the mother's spine is examined and there be found no subluxations to produce incoordination, then *her generative* organs, at this time, will be capable of normal duty. If abnormal, we may find the umbilicus (normal 20-21 inches in length, $1/5$ - $1/2$ inches in width) varying in length from 20 to 60 inches and from $1/2$ to $1 1/2$ inches in thickness. If the foetus fills the uterine walls to its capacity, what must be the change necessary to accommodate this additional bulky tissue?

The foetus is supposed to be in motion; the fact is this uterine body as an individual, has no independent action. The muscular walls of the uterus are constantly contracting and relaxing to get development and strength and be prepared for expulsion, thus shifting its contents from side to side.

This cord, during the uterine contractions, may convolute itself around the leg, neck or the body; once, twice or thrice, and become tightly drawn. Thus you know why a child is born minus an extremity. I can account for monstrosities which are born abnormal *in form*; that is a portion enlarged, very small, or abnormal in deposition, viz., the foetal child has a spinal column and is subject to the same law of cause and effect, to sub-luxations and consequent pressures thereon, as in adult life. From this are emanating nerves as thoro as in the adult. When the funis is wrapped around the vertebrae and becomes tight enough to produce subluxation, thus creating pressure upon nerves as they emit thru intervertebral foramina, intensify, stimulate or inhibit the functions; thereby increasing, decreasing or wrongly placing the expanded cells. If pressure be great, paralysis of mental impulse is the result and the organ can express but little expansion of cells, therefore minutiae of portions.

"*Why is the funis abnormal?*" If there be co-ordination (between Innate brain and physical) within the mother, the generative organs could not help but perform these functions in a normal manner. In all such cases, of the above, referred to, close examination reveals lumbar sub-luxations of the mother. Adjusting such, returning them to normal would allow uninterrupted communication to the embryonic brain. Then and not until would the child resume its normal and cease to be a monstrosity upon birth.

Upon this point Haeckel further says, "It shows us that *each* of us passes, in our embryonic development, through a series of forms hardly less uncouth and unfamiliar. Nay, it traces a parallel between the two series of forms. It shows us man beginning its existence, in the ovary of the female infant, as a minute and simple speck of jelly-like plasm. It shows us (from analogy) the fertilised ovum breaking into a cluster of cohering cells, and folding and curving, until the limb-less, long tailed foetus looks like a wormshaped body. It then points out how the gill-slits and corresponding blood-vessels appear, and so on; until, after a very clear ape stage, the definite form emerges from the series of transformations."

I wish to call attention to Haeckel's contention when he says: "The main theme of the work is that, in the course of their embryonic development all animals, including man, pass roughly and rapidly through a series of forms which represents the succession of their ancestors in the past." This verification is important for it assists the Chiropractor in clearing the many monstrosities in form that are born. The Chiropractor is the first student of evolution that has accounted for the birth of a half horse and half man, etc. The lack of progress thru the evolution from one specie or family to another was brot about by vertibral subluxations allowing the abnormal condition to become a manifestation. The adjustment of this subluxation in the mother, previous to conception or even previous to the fully developed form would have returned the progression of the evolutionary type, would have avoided anything of that kind being born.

It is also a well known fact that man represents the various stages of evolution from an amoeba to that of the child as born. He rapidly passes through all these evolutions during the remarkably short space of time in nine months. If the function of development was to suddenly stop in the midst of some one phase of evolution it would mean that the child might be born half human and half horse, one portion covered with hair, the face covered of the same material or bring out any of the monstrous forms that are illustrated in any authentic book of anomalies. The cause would still remain the same, subluxation produced by the wrappings of the funis around the body thus hindering the transmission of the currents from the mother to the child. The character or what kind of a monstrosity would depend upon where these pressures existed and how great the degree of pressure. This explanation accounts for all monstrosities in the phases of evolution.

Is the embryo a product of force plus matter, or of intellectual force plus matter? I make a distinction between force as commonly conceived by the physicist, and force as conceived by not only the Chiropractor, but by many of what might be called "new thoughters," or "free thinkers." The physicist leads us to believe that force and matter are inherent and coherent, therefore constantly together and could not be otherwise. We cannot gain-say that statement because true, but it does not carry its truth far

enough. The seed is true to an apple, altho but a part, the core might be true and still not be the whole apple.

I cannot conceive of any quantity of matter but that there is a quantity of force in it. We say that the corpse represents a dead man. He is dead only relatively. As we compare him with you, or I, he is dead, but compared with other conditions of death which are inferior to him, he is alive. Could we mentally conceive the actual conditions of the molecules, atoms and electrons of his body, we would find they were in motion, yet the degree that you and I are going through is faster and greater. Relatively he is dead to us, relatively he is alive to something beneath, and, after all, everything we conceive is but a series of comparisons. Force might be greater than the amount of matter to reach a normal standard as we view it, yet that force and matter might be relative, normal to something below our standard.

It seems natural for man to view everything from his own viewpoint, to assume an ideal as the normal from which to judge, and from which we get relative bearings. Therefore, force and matter are inherent and coherent, but that statement has no bearing, foundation, breadth or standard, until we add three phases—question of quantity, time and intelligence.

We cannot consider man without time as a factor. How old are you? How long will you live? How long does it take to build a child? How long will it take a nerve to grow? You cut your hair, and cut it again because time intervenes: Your patient comes; he is sick; he wants to get well, NOW. He cannot. Time must enter.

Force plus matter is less than one-half of the view-point. Force plus matter is gauged by quantity plus time, equaling the product. Scientifically, I cannot assume a single hypothetical question but what we assume all its elements as—force, matter, time, quantity and intelligence.

The railroad train is a mechanical device. We introduce a certain amount of coal and water, then comes force in burning—forces of heat and steam. All to what end? To move the quantity of matter, gauged by a pressure of steam on the dial. To the end of a mile a minute. Time becomes a factor.

You and I are male and female, we are no exception to this common rule of the necessary elements. We are matter and force; quantity of each and time is necessary. The weight of a certain man shows a certain amount of matter. It takes more force to move an engine weighing 42 tons than one that weighed two tons. It takes more force to move a 320 pound man than a 150 pound one. Suppose our man weighed 300 pounds, he had 100 foruns to move him. He would move in a certain time a specified distance. Suppose, though, he had 200 pounds of matter and 200 foruns, he would move three times as far in the same time, other things being equal. Increase the matter, with the same given force and you move relatively. Decrease the matter

with the same amount of force and you increase speed and distance proportionately.

A male is a certain amount of matter. He has working through him a certain amount of force. How much this may be, depends upon the number, degree and location of sublaxations in his spine, interfering with the normal quantity of force getting to the quantity of matter. He has enough to be normal at all times, which is judged from the time he is born until he dies. Increase sublaxations, decrease the amount of force getting to matter, and the time he lives is shorter. Eradicate the sublaxations, let the normal amount of force reach the normal amount of matter, and you increase life to normal. The four attributes work hand in hand, blending as if it were one condition. When those four blend together freely, normally, or freely abnormally induced by sublaxations, the man, in either event, issues a certain product.

That product, in a consideration of embryology, is the spermatozoon—the product of the male. How much matter or force he may give, in what time he gives it, depends upon what he represents. You cannot expect a normal product from an abnormal producer. The abnormal machine turns out imperfect work. As the producer, so the product. The same is true of the female. She represents a certain quantity of matter working with a certain degree of speed, proportionate to the amount of force she receives to do it within a certain time. Therefore, her product equals the number of sublaxations she may or may not have in her spine, which determines the amount of current which gets to the amount of matter, and the product is the ovum in the female. Here are two products issued by the producers, the status and conditions of which depend upon the four elements working in each, either harmoniously or inharmoniously.

The two products of the male and female, assume a relationship; this in itself is nothing more nor less than adding the two products. If they are abnormal, you cannot expect the future product to be normal—assuming the premise that we presumed of the ideal man.

Let us put this thing into figures. We have 100% of force plus 100% of quantity per the unit of time. We have four elements, 100% of each, when they get together we have a product, and that is desired. We are trying to work to the end of having each man or woman issue 100% product, assuming he is a 100% producer. The same is true of the female. That means if we get 100% of each of two products (male and female), the result is that when the two fuse, one combined normal product will be issued.

When we add spermatozoon to ovum, each loses its identity, neither is as it was, the third condition exists—the blastoderm, which begins a process of expansion of only what was in it. Nothing material is added except liquids. What was there will expand. If the elements to make a normal child were not there, the child will not nor cannot be normal. The given amount of

force works on the given amount of matter in a given time. I could not increase as a product what I didn't present, neither can we expect the child to be something different than its parents prearranged it to be.

This process of expansion, to take place in the blastoderm, is based upon the four elements, because these form the premise upon which natural things grow. The amount of expansion is determined by the amount of force working through the given amount of matter deposited in a given amount of time, which is 280 days, other things being equal. In 280 days it is presumed that a certain amount of expansion has taken place to form a completed natural product, providing the normal amount of matter had been placed and a normal amount of force has worked in a normal amount of time.

This introduces the fifth element, which was necessary from the beginning. I cannot reason any other way, although the physicist says he sees no necessity for the element of intelligence. Intelligence is not a concrete that you can buy and sell. At one time a well educated student said, "As a scientist and as a student of man, I accept nothing that I cannot prove by the rules of physics and the laws of chemistry." I asked if he was an INTELLIGENT man; he said he was. I asked him to prove it by any rule or principle of chemistry or physics. Yet he assumed that he was intelligent. We logically admit many things that are beyond the possibility of physics or chemistry. The question arises here though, whether the hypothesis or theory—as termed by the physicist, of intelligence becomes a necessity to the expansion of the embryo, or not.

Let us go one step further and weigh relatively that portion of our brain we call educated. It is force going through brain in certain quantities in a certain amount of time. Here is an idiot. We ask him common questions, his answers are incoherent, far-fetched, etc. Here is the element of time. Our boy is working an educated brain with a small amount of force. There is not a sufficient amount of force to answer intelligently. Another has a normal amount of force working normally, therefore, gives you answers quickly. Time becomes an element of thought educationally. We say our ideal man is educated because he goes through a certain process. What is it? He goes through an introduction, interpretation, elimination, adds or subtracts, accepts or declines, all of this goes to make the elements upon which we base our conclusion. He tells whether a certain element is hot or cold, good or bad, moral or immoral, whether a certain act is a moral obligation to your neighbors or not. He speaks of height or depth, and makes comparisons. He constructs thoughts, builds ideas, and tears down old ones. Constructs and tears down buildings. He is a constructive and destructive creature. All of this is the process of reasoning or thinking upon things.

The end of all thought is to act. We call this a process of intelligence. I think we concede logically and without question of

doubt that every man has an educated intelligence more or less, according to speed, time, comparative with quantity of force acting through matter. We know anatomically and through the process of vivisection that, educationally, we do not use all the matter inside our skull called brain.

It is a question whether the balance is used by the physicist's basis of "force plus matter is inherent and coherent," or there is more of this intelligence or another which resides and does the same things that we do, far better, in higher degrees and specialized work. As force comes through our educated brain it produces thoughts, it is a question whether the balance of this brain does or does not think. The physicist says it does not think, reason, discriminate between hot and cold, good and bad, moral and immoral, height and depth—does not use a process of subtraction and addition. It does go through "sympathy" and that we know is "by means unknown." If they had established a foundation which would stand logic, investigation, and upon which they could assume a premise which would hold, then we would have to meet their conclusion in ours, but they have reached none, other than to say, "by means unknown." They haven't established a means by which this occurs. Co-existent to finding "by means unknown," they have reached the conclusion, that "force and matter are inherent and coherent," and there the hypothesis ends.

We have seen that the spermatozoon and ovum fuse and form the blastoderm, for 280 days it is expanding its cells. They are opening up like a flower bud. First it is small, but organ by organ it opens, membrane by membrane is formed, finally we have the full development. From the beginning there is a placing of bone cells as they develop. Many go to form the femur; femur cells don't get mixed with those that form the patella, and here are little bone cells by the million, each helping to form bones, and none get in the wrong pew. Each cell knows where to go. While these bones are developing, there are tissue cells making muscles and connective tissue, and they don't get mixed, and while this is going on, other cells are making ligaments, nerves, hair on the head and finger nails. There seems a process of discrimination between a muscle, nerve, ligament or blood, and there is something that directs each cell. There is no confusion, but harmony in the placing of these cells—millions of them—and all are being rightly placed in the little child in the short space of 280 days, and yet if one man with hundreds of men employees, and dozens of factories working put up an eight-story concrete building in one year's time, he thinks he performs a wonder, when it isn't as the snap of a finger compared with the building of one child. Not only are these cells placed, but they are of different sizes. Those which make the extremity of the femur are larger than those of the shaft. They are differently placed, differently builded. Go over the body, you find they are of different shapes, sizes, colors, densities, and grow with different speeds. In the child the lumbar centrum is the last to ossify, and it is the op-

posite with the spinous processes. Some of these bones are ossified when we need strength at birth, there are others which not finished at birth, are finished afterwards. The liver cells are a different color, size, and condition than those of the heart, etc., and all of this, it seems, brings to light a process of discrimination. If you educationally possessed any one of these attributes you would consider yourself a wise and capable man. You would call that thought, act and accomplishment the acme of intelligence. When a man can build a straight wall, or, put up a chimney 40 feet, so that it will swing with the wind, he is an artist, because every brick is plumb. A man who doesn't know how will have a curvature, get it wobbly. If you could place even osseous cells in that body you would call yourself wise, by the standards by which we judge education, which is by and through your educated mind. But here is SOMETHING which places bones, muscles, nerves, ligaments, cartilages, and all other structures, and is doing all simultaneously, not one mixing or fusing with another. Not only placing them, but regulating size, quantity, position, place and density. You haven't the intelligence to do it with, you are shy the necessary education, and I do not know of a school teaching it, there is no place to learn it, and if there was you could not do it, because it is outside of the province of educated man to do those things. Not only are the attributes I spoke of, "force and matter inherent and coherent," essential, but there is the intellectual phase that adds the burden and, without a murmur, frown, scowl, or protest this "something" assumes the load, goes on quietly, smilingly and does its duty.

In case of an emergency, as a fever, this force takes up the added responsibility, carries you through, struggles to see that you do not give up the ghost, and finally you pull through, and then builds you up to apparent normal again. Put your hand on the hot stove, a water blister forms, skin raises, there is a protective sack of water underneath. Cut your skin, a cicatrix forms which protects the new tissue and only a scar is left. Get a fall, produce a fracture. Not only was osseous tissue manufactured to be normal from day to day, but now new tissue unites the portions in ten days to two weeks as solid as before. Supposing you get a blow on the skull, a concussion on the spine, there is an attempt to deal with it intelligently. Suppose you got a dislocation, and it was never set, then this "something" in and behind forms new processes, uses mechanical principles, brings out ideas and movements found in mechanics and utilizes them. Supposing you have a prolapsus of the heart, pressing upon the diaphragm. It is not within the province of this something to correct the prolapsus when there is a subluxation cutting off force, but it can contract the diaphragm and thereby hold the heart up, which is adaptability again. Introduce poisons into the mouth, the intelligence floods the stomach with mucus and other fluids, to dilute the poisons, to save tissue cells from becoming destroyed, to save life. A bullet enters your body, it is never found, but in

post mortem it is discovered, completely encased with cartilaginous tissue cells. This sack is dense, solid; it is like cutting a gristle. Why? To keep rust from getting outside. Introduce a splinter in your hand. Give it time and it will heal, after a while the beal bursts and with the matter comes the splinter. The man who works hard, shoveling, forms a callous on his hands.

If you had the possibilities, with your educated brain, wouldn't you try to do the same? If you had excessive heat, wouldn't you take that man where he was cool? The body cannot cool it with ice, but it causes a perspiration. What do you do when you cut yourself; bring the edges together. The body naturally contracts its muscles and lets the edges come together. What do you do in a case of concussion, educationally? You let the man have rest and quiet. What does the body do? Purposely makes the body unconscious so that he cannot move. In a case of prolapsus, what do you do? Externally you put on a truss. Internally then contracts muscles so it must stay in. In the case of poisons, what do you do? Try to purge, or take a drink of lukewarm water for the purpose of diluting the poison. The body does the same, only naturally. In the case of the bullet, you tried to artificially extract it. From internal sources, there will be a bealing, if the bullet be near the surface, and exude itself, or it will make this tough casing around it, if internal. In the case of a splinter, what do you do? Artificially you pull it out. Naturally, the tissues would beal, form a blister, and float it out. In heavy work, if your hands are soft, you wear a leather glove. Leather is artificial callus to the soft hand. Naturally, it grows its own leather.

If we, educationally, try to do the same things that are done naturally, then compare the relative degrees of perfection in the doing of the same. Educationally, we cannot grow leather, so we put on leather. Innately, the leather is grown. The intent is the same all thru the things we would do if we could. Those conditions are adaptations to circumstances. If a man would do these things for a purpose, isn't there something in and behind that is doing the same in a better way? If we reason and think in the putting on of gloves, is it not also reason and thought in the growing of natural skin. If we naturally think, reason and study to drink lukewarm water to purge poison, then, if without your doing that the stomach is flooded and the poison diluted and purged, isn't there reason, thought, study there?

Let us refer back to the child again. I told you it was the product of all the attributes necessary to form it, and isn't it the product of thoughts in and behind the parents, and after it is born isn't it then the product of the thoughts in and behind the brain which we educationally have no control over—the part we cannot use?

The question arises whether there is such an intelligence residing in the other part of the brain over which we have no control, or whether it is simply "force." Let us study briefly the field these people cover. We are told those things, which go on, are

controlled by the SUB-conscious mind, without consciousness,—an unconscious mind. Consciousness is to be awake, to understand, comprehend. Here is a mind working without comprehension, understanding, of what it is doing, it uses no process of discrimination. It doesn't make any difference whether bone cell goes to the place intended for nerve cell or not. It doesn't know the difference between good and bad, hot and cold, moral or immoral, height or depth, or any other attributes. It is without consciousness, it is asleep, dead to the world.

On the other hand, I think any mind or force, which goes to the extremes of placing all those primary tissues in proper place, never fooling itself once, not only that, but going thru all the attributes of which I spoke,—size, color, quantity, and kind—that may possibly enter is conscious, but it must have a SUPER-consciousness as compared with our educated mind, an idealized brain and understanding. This mind is far above anything we educationally can compare it with. Instead of SUB-conscious, underneath your educated consciousness, by comparison, inferior to you—it is the reverse, for this other mind does everything we cannot, even though we were given the force and matter it uses in a given amount of time. In comparison we should reverse the position and place the sub-conscious mind as SUPER-conscious mind, instead of looking down, look up to, because it is our superior.

The original premise that "force and matter are coherent and inherent" is true, if we can add three qualifying conditions, which is that with this force goes an intelligence, that with intelligence is a super-strata.

In all thought we reason from the known to the unknown. Educationally, we know that we think, reason, study, discriminate, compare different quantities of force and matter plus a given amount of time in which done. We know that with this process we issue certain products, those tally with the degree of the producers. Look at the product of the other mind, this child, with which we educationally cannot make a comparison, and yet we are presumed to say, from the physicist's and chemist's standpoint, that all this occurs without intelligence,—by means unknown.

By comparison, reasoning from the known to the unknown, a product that is so much better than our product must be produced by an intelligence comparatively greater. We know that the product is only equivalent to the producer. As we think educationally, so do we produce. Look to the product of the Innate, the child. As the child, so must be the Innate, other things being equal, giving her freedom to act. As the height of intelligence we see the product, so must the height of intelligence be in the producer. The more we see in the child, the more we see of the grandeur in the possibilities of the maker of that child, then do we receive an idea of how we should revere and hold in esteem the Innate that made it.

We grow in appreciation of things natural around us as we study and decipher them in their natural relations, and then we are compelled to say that anything that can make that great product must be a great producer. We learn to admire the producer as we see the product. It is natural to presume that we educationally would do as she innately does, if we could. We cannot. We must study then to appreciate ourselves. What we are educationally, is coming from our superior. We can never say that the inferior makes a superior, but superior issues inferiors, and inferiors study and try to equal superiors.

In study it seems that the physicist's basis that "force and matter are inherent and coherent" and letting the premise rest there, is too narrow, not broad enough nor forcible enough to meet facts as they are. Children are dual things, part educated mind, and part innate, the actions governed educationally are inferior to the innate actions, and the products compare relatively.

Physiology

The study of functions is the observation of action. When we see this it is life applied, existence expressed, in a physical manner. We must start at definite points and reach final conclusions. Function is action and it is impossible to have *known* life before execution is perceptible. *Life* exists, mentally, before its expression physically. Nothing is enacted in the physical, but its mental equivalent must precede it.

That is to the brain cell what function is to the tissue cell of the balance of the body. The terms "that" and "function" are both abstract until we apply them to some action which has taken place in a physical medium.

When we conceive that two brains have passed thru them an unsensed substance, which the brain transforms, we call it function after expression.

We can see this unsensed attribute only after it and the material have been united as one.

The Innate brain, as a part, is the first embryonic organ formed. Life exists around us at all times, but should we wish to take one hundred units of life we could not do it. To measure it in square inches is an impossibility. It has no space limits; exists in unknown quantities and cannot be confined. It is sufficient to know that an individualized portion of this unseen force passes thru the medium of the brain of each plant, animal or human being, and there makes its existence known thru a physical intermediate. Altho of the same consistency and making the individual live, it is, by him, unseen, altho, performing his functions.

The brain function is the first incipient action. What is this? To passively absorb and transform external etherical units of force to an internal physical power. Electricians are aware that a transformer is a convertor; the same exists here. Absorption—sparse transformation—expulsion.

These brains have, combined, a brain cord extending from them which is an elongation of fibres from brain cells.

The next function of spinal cord is to transmit; to conduct that which is transformed. The fibrillæ can aptly be compared to electric wires. The wire does not create but transmits; does not interpret nor switch onto some other—it just transmits. The wires do not nor cannot perform the duties of a dynamo. You ask, "By what means does the spinal cord carry, transmit or conduct this force?" Each impulse leaves its brain cell with a cellular contractile impetus, which is sufficient to deposit it at extremities. Altho unlimited around us it *can be* constricted, confined and estimated in lack or excess of quantities or quality by obstructions at intervertebral foramina, a condition which will never be seen with the microscope. That is why it is not spoken of by M. D.s "What cannot be seen does not exist." Can the electrician tell *how much*

per minute passes over a wire? The quantity of electricity passing thru a wire is known only as a device is placed at an intersection in the wire, and then as the current passes thru it it registers the quantity and number of units of energy. These devices are called metres, because it registers the given quantity of current being transmitted within a given attribute, which we may be investigating, such as time, speed, quantity or quality.

Yes, by the quantity which is expressed in action in that given time. Can the electrician tell how *such* passes over a wire? If he knew what electricity was he could, *perhaps*, describe its transmission. *The P. S. C.*'s philosophical students know, most thoroly, *why and how* Innate creates and utilizes force.

Mental impulse is that accumulation of immaterial units of intellectual energy which, after having been absorbed, transformed and expelled thru the brain, Innate Intelligence deems of proper quantity and quality to personify specific characteristic functions.

Every function of the body is controlled by mental impulse. You will notice that *The P. S. C.* is with this, like with all new ideas, the first to claim this keen distinction.

Innate Intelligence is that sum total of individualistic mental impulses each of which is composed of multitudes of intellectual immaterial units of energy, after they have been received at the brain and transformed for the needs of the natural body. It is a name given to the intelligence which exists in transformed form in any object living in definite size and shape.

These brain fibres emit thru the various foramina and after their first division again subdivide and continue this process of separation until each cell or tissue has its fibrillæ. *The P. S. C.* gives to each brain an intelligence which is capable of stamping, on each impulse, an individuality. With this comprehension we can easily understand why functions are harmonious, but to "turn back" on the supposition that harmony exists because they are "reflex" or "sympathetic" does not meet the comprehension of a person who wants to know *why* the *intelligence expressed*.

When we look to the minute dissection of muscles we find that each is made up of muscular fibres and each of these is composed of cells which has its independent brain, nerve and tissue system placing it in direct communication with the mind and subservient to its demands. Each fibre acts as a unit and the multiplicity of actions, guided by Innate, of the many makes a harmonious whole.

Bone, without mental intercourse, has no property to move. Living osseous structure, under a microscope, is gradually changing its consistency. As certain cells are utilized, others come. The expansion of germinal osseous cells, from ossific centers, is but the minute action thruout the bony framework, which gives Innate another opportunity to express her *mental and physical unity*; adapting her power to the circumstances that have been, are present, or are expected.

All nerves are alike. Those coming *from* the brain are efferent, and express one character, motor. That is, each fibre

will carry impulses which, when expressed, produce some individual characteristic action or motion. What *kind it* will produce depends upon the type of impulse that is given to it at mind. The discrimination, in tissue action between them, is due to the different species of impulse. In general, they are motor, but this takes on many changes. When secretory mental impulses are placed in action, at peripheral of brain fibres, it means that that issue will perform a secretory act, creating a juice. Following this must be the excretion.

Nutritive or trophic impulses, when expressed at peripheral of fibres, mean that certain kinds of materials and impulses are utilized to perform that function. We have also calorific; that is, that character of mental impulse (spark) which, when expressed at peripheral, induce combustion and produce—heat. *The disposition* of the latter would not be in accordance with secretory or nutritive. When we cut, tear or bruise tissue, reparatory impulses are needed, which have that distinctive, expressive quality, and when placed into action, induce repairing, thus healing the injured portion to its normal condition.

The brain is the generator, maker, transformer or converter of mental impulses, and as there resides within this brain an intelligent mind (Innate), we must admit that to *Thou* belongs the honor of giving to these impulses their distinctive qualities—not alone for the functions enumerated, but all power that is created.

The generally accepted function of the stomach is “to churn food.” The stomach, liver, spleen or any other organ has no function to perform, although each is supposed to express such. *Dunghlison* says, p. 641: “Function is a *special office* in the animal economy, having *as its instrument* an organ or set of organs.” “Music is the product of a musical instrument. In other words, the instrument is there to express a function, providing it gets or receives a function to express.” Every tissue has “a special office” which is sent to it. Therefore, all functions are mentally created and physically expressed. Function is one, but might be divided as: Mental manufacture and physical expression. “Johnnie is a lively fellow.” Chiropractors mean that *Johnnie is able to put into action a far greater proportion of impulses* than the average person. He is more nearly normal.

The stomach is composed of muscular fibres placed during the embryonic or foetal life, and are daily expressing impulses going to them, and will continue so until the nerves are unable to transmit, deposit or place them into action, after which death is the result. As long as there are cells in reserve and they are capable of being expanded, then life—*action*—can exist in that organ. Take away mental impulses that would ordinarily go to the muscular fibres, so there can be no expansion of cells to replace those utilized, and death of that organ exists; there ceases to be an “instrument” for expression of “function.” The *physical* function of the stomach is to promote contraction of muscu-

lar fibres. These produce a wave or rhythmic action and a churning-like movement is present. As long as food is in the stomach *Innate* will adapt herself, with rhythmic movements, to mixing it with splenic fluids.

The movements of the bowels is peristaltic. That is, express a rhythmic-like movement through them always towards the external, gradually working onward fecal matter until it leaves the bowels. This is *bowel expressions* of life, although mental conception and propagation preceded it.

Study respiration. The lungs contract and relax. It is an *Innate* voluntary function, continuing alike whether asleep or awake. *Who* is it that guides and directs every impulse as it goes out? *Where* is this fellow that accommodates himself to the external and internal man? We run and breathe faster, perspiration follows more freely. Can you call those "reflex actions?" An echo is a good example of "reflex action," but I cannot believe that my physical is the expression of an acho. My wish is to be a reality and explain its existence and actions by such means. To explain by "reflex action" is like hitting echoes. *Try* to hit it here and find it there; you attempt to bat it there and where is it?

Suppose we fracture the femur. Can you say that the fracture *happens* to heal? Is that an accommodation that is "just as luck would have it?" If these functions portray deep thought (they *do* to a Chiropractor and *do not* to an M. D. or D. O. we must place behind them an intelligence greater than man. This gap is well filled by proving that *Innate* builded piers of exostoses and repaired it.

Abnormal brain functions may exemplify many "mental aberrations." The brain is physical, composed of tissue cells similar to the stomach or bowels. It must be kept to normal in nutrition, calorific, etc. One, two, or any number of combinations of these, in excess or not enough, means—disease—physical disease of the brain—with the inability of *Innate* to work through it—thus giving rise to what is commonly termed "mental disease," with physical portrayals.

If the brain is not sufficiently nourished, it becomes depleted and acts as a poor medium for etherial power to pass through. It makes a weak transformer. That person is liable, under conditions, to do many peculiar things, talk faulty; in brief, be slightly or greatly insane.

Function is the expression of mental impulses through an "instrument." If at any time an accident, strain or wrench occurs and produces a vertebral subluxation, this, by occlusion, impinges nerves, as they pass through the intervertebral foramina, that are transmitting mental impulses to that "instrument" at periphery regardless of where located.

Disease, regardless of character or location, is but a loss or exaggeration of one or more specific functions; that is why, in the analysis of disease, at each recitation Chiropractors resolve to "component" functions as well as cause. To simplify is the aim

of *The P. S. C.*; to make complex, to try and meet competition is oftentimes the aim of improperly equipped schools. Remember, boys, greater movements, all realities of life, are based around *simple* principles. To act big when you have nothing behind it is but to heap ridicule upon your empty craniums. Beware of the sharper with the silk hat. He has poison or a carefully baited hook in the empty space underneath.

Yesterday among the new clinics was a case of paralysis which is generally a loss or excess of function—motor power. There was not enough *motor* brain impulses going to those legs to allow normal action. Calorific and nutritive motor functions were also involved. The hands and feet were cold. His extremities began to deplete themselves for the want of nutritive functioning impulses to maintain the equilibrium under which he has been living. A Chiropractor analyzes symptoms back to various functions and cause of each, thus reaching a definite conclusion the adjustment of which returns normal health.

When summed up and down every disease is a lack of or excess of function; too much or not enough of mental impulses. There is too much or not enough motion of the stomach; an excess or lack of action of the diaphragm; an evidence of too much or not enough movement of the bowels; supply is too great or too little to the kidneys.

In brain tissues we can have both; find the same in all organs or tissues of the body. The M. D. believes that if there is not enough life, "give something to stimulate and make more." The newly graduated M. D. has a thousand and one things to try. What would *stimulate* function in him may not in number two. No wonder it is called "practicing"; he is always *trying* to do something. After ten years he settles to three or four kinds of medicine (if he is honest, and many, after twenty-five years' practice, only have two. When there is too much function he has one to deaden, when not enough he uses *the opposite* to *stimulate*, and finally (providing he follows the golden rule) he will quit both and tell the patient to try something on his own hook or live quiet until he dies. (Laughter.)

Ordinarily the osteopath places great stress upon the tonicity of the spinal cord. He argues if the segment is nurtured by blood it is capable of sending out a normal quantity and quality of impulse, and this ramifies thru its sympathetic and is capable of giving normal reflex, provided the segment is properly nourished. *Clark*, in "Applied Anatomy," maintains that the intervertebral foramina may be occluded, but that the damage is indisputably by the amount of blood it shuts off from, thereby degenerating the segment. So far I have not found where *Clark* stands pat to the principle that impingement of nerves as they issue *from* the spinal cord, thru intervertebral foramina, shuts off mental impulses, and hence death (partial or complete), is *the* cause of degeneration or disease. He almost, sometimes, had reached the crisis, but eventually slides off by remarking that the blood supply was cut off.

The osteopath handles vertebral subluxations with hog tongs. He always has, and will, for his working knowledge of them is limited to the *treatment* of such conditions. *To treat a sore* is different from *adjusting its cause*. In physical conditions the cause is a vertebral subluxation. This they are, *sometimes* (*very few*), aware of, and when they *think* they know it, begin "scientific manipulations" to *treat the osseous lesions*. Thus never reaching subluxations or giving Chiropractic adjustments.

Chiropractic is *many* steps ahead of anything found in osteopathy. *The P. S. C. has every book* that I know of published upon that science. These were purchased to *prove* that Chiropractic is not osteopathy.

To study Chiropractic, from its psychological completeness, gives to man a unity that has never been conceded by any science.

Reading many books of M. D.s and D. O.s, their experiments and tests remind me of the following article. They are *trying* to definitely run down one effect and then *try* to prove it "reflected" from another. The osteopath tries to find a *lesion that made lesion*. Lesions make lesions thru lesions and by lesions:

"One of our great universities has given to an investigating genius a degree in science of the thesis on the absorbing topic, 'The Longitudinal Vibration of a Rubbed String.' Too little attention has been paid by science to the minutiae of every day. While erudite gentlemen have been measuring the salutatory efforts of the arctic flea, and other seekers after knowledge have been digging from Patagonian morasses the fossil remains of some monster with a name like a Polish pianist's, this far-seeing scholar has stayed at home and rubbed a string. He who seeks doctoral decorations need no longer dig thru weary tombs or glue the tired eye to the exacting microscope. He may stay at home and pet the cat, as preparation for a disquisition on 'The Latitudinal Cross-Currents of Feline Satisfaction,' or he may go fishing and enlighten a gaping world upon 'The Convolutionary Variations of an Impaled Anglemorm,' or, again, he may make capital of a minor misfortune and win himself undying fame as a recognized authority on 'The State Secretiveness of a Dropped Collar Button.' When a modern Aladdin can rub a string and summon an Sc. D., home-made degree should be within the reach of all."

The Senses

The educationally known physical senses are sight, taste, hearing, smelling and feeling. These are received thru physical channels. How many may exist beyond, of the Innate mind, you or I do not know. A few people have some of the latter so highly developed that they become in effect a reality; the actual performance of the function is a declaration. I might refer to clairvoyancy or telepathy, etc. But it is not within the scope, tonight, to speak of "Senses" beyond those in common, daily use, which are known physically; if they be not known to my educated, I know they do exist by their responsive expressions externally from Innate. We would not understand that a sense exists were it not for their expressions. You nor I could nor would not comprehend what we saw were it not for actions responding. I would not know that music was pleasant if it were not that I acted in a receptive manner to it. I could not realize that foods were tasted if not for the apprehension. There must be a synonymous action with each sense to let its actuality be a reality.

We know that man exists with a dual brain, one in which Innate resides and another thru which Educated takes cognizance of external things. A sense is that impression mentally interpreted, made upon one or the other brain. Place the tips of the finger, peripheral ends of fibres, in contact with a substance and you create an impression, conveyed by afferent fibres to the brain within one five-hundredth of a second. Within this remarkable division of time the mental knows *all* about it.

You ask what transition impressions must pass thru to be "sense." The brain and its intelligence, residing therein, whether that be Innate or Educated, receive impressions and place upon them the stamp of interpretation. This may be good, bad or indifferent, similar to the development of a film of pictures, which may be sharp, dull, indistinct, or not focused, the exposure under-timed so that a poor negative (interpretation by process of developing is the result. The fact of having touched the periphery does not mean that we have "sensation." Chiropractors consider everything, from the external going inward, as impressions.

Impressions placed into active forces which cannot be harnessed or measured, which you and I have no control over, and then a physical quantity (nerve) carries that distinctive kind of action, and a physical organization (brain) receives these impressions and place them thru a period of development. After which its demands must be replied to, and that response is the recognition and proof that there is a *sense* of this, that or the other character. The sense is the external, thru an intermediate, coming in contact with something internally. We see or hear, yet there is no skin to skin contact. There is the continuity of

tasting, apposition of substances in feeling which *is* the coming together of two material bodies; and its interpretation at one central point, either brain.

Each brain has its complete number of senses. The Educated mind can see; listen to music; touch and feel; taste anything which is placed within the organs of taste. Therefore, this brain *must have* fibres to transmit impressions. Every afferent fibre admitting impressions responds thru a motor to the point of origin of the impression. We have a complete circuit by means of the brain.

I do not know how many more than hearing, taste, smelling, sight and feeling there are in the Innate brain. There is so much that travels under the head of occult science that is palpably a fraud that I will not commit myself. Out of one hundred per cent, before the public in the name of clairvoyance, spiritualism, etc., ninety-nine is fraud and one per cent genuine. That one per cent *is* honest, but it is not doled out at \$1 a sitting.

You can see why two brains, each working with an individual set of sense impression fibres, going into and carrying outwardly the motor responsive impulses, that whatever impression is carried to one brain is also impressing the other, therefore is never lost.

There are many impressions which are interpreted as pleasant and to these we grow receptive. There are those on the reverse, which are repulsive. How is it that a merchant, seeing a well dressed lady entering the door, bearing the prospects of being a good customer, invited her to a chair and talked pleasantly to her. Because she made a pleasant impression on his mind. On the reverse, a beggarly appearing tramp enters. He may have a million in pocket, but he made a poor impression; he calls the janitor and throws him out. Your physical was contractive because he made a poor mental impression.

There are many things which conscience (a sense of the Innate) prompts you not to do, for it is not just, honest; but you can, by force of Educated, perform that act. Then comes pangs of consciousness which cannot be restricted, there still being that intelligence, greater than the Educated, that you cannot get away from. You can domineer and command the Educated to overthrow Innate temporarily, but permanently you cannot. We may be able, in a measure, to dictate to and control the Educated man's ideas and impressions, but there is one being you *cannot* twist around your finger—Innate.

What is conscience? It is Innate voluntarily expressing and acting in response to voluntary impressions received inward. It is that good or bad, right or wrong interpretation that is placed upon Innate impressions. This fellow is always ready to bore and bother you. Educated may persist in "stealing anyhow," but Innate reminds: "If I could but return those jewels I would do it," remembering Innate only has to do with all that is internal, there-

fore cannot utilize nor act with externals. A woman has this "intuition" more. It is an Innate voluntary action more dominant in women; she listens to its reasonings, is more susceptible, and as a medium is more willing.

Conscience is of two characters—Educated and Innate. Conscience is but an ideation following the interpretation of all of the senses of each brain that is doing the interpreting; for instance, the ideation following the intellection of the five senses of the educated mind, thru the educated brain, upon all the impressions being received from some one specific, definite, characteristic function—this is equivalent to the conscience of that mind. As the Educated mind deals only with external conditions, we can say that the scope of the Educated mind is confined to ideations formed of ideas surrounding it.

Innate mind, through the Innate brain, having at least five senses, each of which is better than the opposite in the other brain, and in addition to these many more—how many we do not know, but the interpretations made by the five senses and the additional ones of the Innate mind form the Innate mind ideation; equivalent to an Innate conscience.

How often you merchants, who have a wife in business with you, have noticed similar to the occurrence of where a stranger enters and accosts you with, "Mr. Merchant, I want to borrow one hundred dollars; I am hard up." "What security have you?" He submits something which your educated senses, and as far as the intelligence of that brain knows, can be accepted as good. Upon returning to your office to get the money, your wife says: "I would not do that if I were you. I do not *feel* just right about it." Every successful person wishes to reason all deals upon a business basis and is loathe to accept such "women's foibles." He wants definite facts or logical deductions which could be passed upon by a jury. But to repeat that "his wife did not feel just right" is no excuse and would make of him a laughing stock, altho he runs no risk by not doing it and *might* have lost by loaning. The wife gave free rein thru her physical to Innate. Her impressions were keener and created a higher degree of interpretation, consequently responding with more force, sufficiently so, to try and save one hundred dollars. Man has an Innate and should allow this to be developed the same as woman. That is why I daily urge upon you boys "Let your Innate sway your entire internal and as much of the external as you can," and you will not lose. The Innate knows a thousand times more than you and I ever will. Follow the appetite and inward desires and you cannot go wrong.

Each sense starts into action different characteristics. Impression is carried by way of an individual fibre, thru spinal cord and to an individual lobe of the brain. It is there interpreted, for instance, as one demanding heat. Immediately that lobe which interprets impressions communicates with the calorific. "We need more impulses, calorific in character, in the pelvis." There is an

immediate response and heat is the product, *providing* there be no interferences with these messengers from the time of leaving brain until expressed at tissue cell.

Another fibre might convey impressions which, when interpreted, might have the deductions that the ossum innominatum is broken and force must be directed to repair it. The Innate mind thinks, reasons, and immediately responds with impulses. Cells are expanded from an ossific center, sent to, and are accurately placed to make a correction according to some mechanical principle. Fusion proceeds until the fragments are welded with the new material. This can take place whether the pieces are placed in apposition, or never set, which is found so frequently in animals, domestic or wild.

Again I call your attention to the intelligence behind all this, which tells each cell where to go and what to do. Whatever an impulse does, it is motor; that is, it gives vent to action—function—life. When we cease to have life in whole, there is death; if a particle of life—function—is impeded, death exists in proportionate degrees. The different degrees are *named* according to what kind of death inaction is portrayed. We can say all impulses are motor, but we subdivide each into a type. Call it calorific; reparatory or creative (as in organs of reproduction) it is motor.

You are asked educationally to sense by interpretations what the membrane of the bowels feels like. Can you educationally do it? No. Why? Because you have no educated afferent and efferent fibres leading from the educated brain to that membrane, yet should anything go wrong (excessive heat) there would be impressions made which would travel afferently through the Innate fibres, passing to the Innate brain, when the Innate mind interprets them, and then by a series of connections passing always from the Innate brain as products of the educated brain (the receiver), so much so that the educated brain would say there is something wrong in my bowels, because of the thought having been worked out in the Innate brain and then given to the educated brain. The educated brain has no known means of communicating at will with the Innate brain, in a manner similar to the Innate brain communicating constantly with the educated.

I know that you are thinking that this is wrong because of the many psychological phenomena. Any distress in the stomach (or disturbance) is always Innate mind at work through the Innate body. At such times the educated mind is a blank. When the educated brain is asleep, or doing no work of its own, it becomes an absolute, complete and responsive medium for thoughts and ideas coming from the Innate mind.

It is the Innate mind, through the Innate brain, communicating with the educated mind and educated brain—there is no intermingling of thoughts at that point, but they all come from the superior source thru the inferior—the educated mind in the edu-

cated brain does NOT communicate with the Innate mind in the Innate brain.

The following illustration is simple and practical to all. Those having constipation will recognize the reasoning: The bowels are ready to move. You go to the bath room and wait, wait *and* wait. Bowels do not move, are not working, and *you* reason that "Nature must be off duty." Anyone with normal Innate voluntary function ought to have a movement of the bowels and not know when such begins or is thru with. I do not know when food in the stomach is digested. I am not aware when food has passed into the small intestine. If the stomach and bowels are doing their duty, why should I *need* to know it? It is not necessary for the Educated mind to keep tab on those functions which its superior (Innate) senses and controls by the law of adaptation. This person has been waiting for Innate to do his duty, but owing to the impingement upon those fibres they are unable to convey mental impulses which could perform that action. Then is when Educated senses the inability of Innate to perform her work and concerted action follows. According to the two drawings upon the black-board you will observe the rectum and anus in both. No. 1 of drawing "A" is the nerve fibre which conveys impressions to Innate brain. When fecal matter reaches the rectum the impression passes to the brain. "This fecal matter is ready for expulsion." No. 2 Innate voluntary fibre carries impulses to perform the act. Rotary action follows freely, in normal quantity, and the fecal matter leaves the body. In case "B" the nerves are impinged. The bowels cannot get their normal supply of mental force, therefore cannot maintain a normal equilibrium—are paralyzed in action. No matter how many impressions went to the mind, there was an inability to respond. Fecal matter gathers without any prospect of being evacuated. In another moment an appeal for help is made to the Educated mind, in the form of impressions traveling to this brain, hence Educated responses follow. The forces of both brains *combined* are occasionally sufficient to produce the requisite action. If the constipation be a chronic or bad one, internal measures to soften fæces are often used, not as a means of adjusting the cause or that there were any prospects of such, but as a means of making it possible for a movement.

The Educated and Innate mentalities do not talk these things over within the skull. Each is composed of many lobes—Innate brain has comparatively more. It is these that intercommunicate with each other *in that* brain but not with its mate in the other brain. All lobes in Educated participate and the various lobes in the Innate brain hold communion, but there is no crossing or telephone system from one lobe of Educated to another in the Innate brain, although every Innate lobe is in constant communication with every Educated lobe. This is one instance where I believe we have no reciprocal action. Each brain is independent of the other,

yet each is dependent upon all the lobes within that one. Both receive the same power from a superior source—Innate.

Innate controls the two brains, the physical for the purpose of running bodily functions, which is done perfectly if not hindered by derangements of the osseous tissues which would interfere with the transmission of mental current. Innate starts the physical body, knowing all about how to conduct the physical functions, but knows nothing of the external. During life Innate learns of external things and is educated accordingly. At death Innate lets go of the physical but retains all that has been learned during each physical life. Innate has used the physical brain and body to perform the various functions to maintain expression for the purpose of *education*—self preservation—adaptation.

In dealing with the senses, what they are and where, we cannot help but consider diseases of them. Each may be affected by an excess or a lack of the normal responsive function. These are most commonly sight and hearing. Why is one or the other minus? To have normal sight means the coördination of impressions, their interpretation and motor impulses to respond accordingly. Any one of these acting below or above the standard means *incoördination*. This condition can take place in the optic set of Innate or Educated brains, for each has its combination to sense external objects with. I have seen individuals who had a normal eye, so far as physical examination was possible; but could not see. Somewhere along the circular path was a circuit breaker, and that swtiched impressions which never reached the brain. Some individuals have Innate sight and no Educated. When you study and appreciate such ideas it clears a multitude of secrets, explains many mysteries and “phenomena” which have never been previously intelligently answered.

You will realize how much greater is the ability of Innate over Educated by studying the expressions of both. The former is capable of placing a greater degree of interpretation upon impressions. If you desire to realize how great the labor of sensing and responding is take upon your Educated brain the duty of every organ and muscle necessary to control the body for one day, and I will guarantee you will be glad when one hour has passed around. Could you, for one day, take an arm alone and control its very sense? Would you try experiment of keeping up its wear and tear? When you know that Innate controls the entire body with its innumerable duties, will repair portions if fractured (the normal alone proving to be an enormous task for the Educated); but Innate adds many another step, with the utmost ease, without bluster or horns or trumpet, but, as a powerful force will *adapt her powers to the conditions* that are constantly changing according to climate, age, sex, etc., etc., thus showing herself to be *the only master*. She can truly be called a *master* mechanic when examples of her work, accomplished thru the physical body, have been studied.

There is thought in this paragraph for comparison. Where have we any master? We talk of "masters" of art, literature, sculpture, etc., but are they *masters*? They are simply expressing things. Anything you might want to compare with the work of Innate is not possible. Everything man wants to do is a duplicate of something already existing. We can take marble which Innate made and chisel it in concrete resemblance to a human body; we can take ideas and put them into concrete; we can make chairs, tables, etc.—all concrete things. As yet we have not shown ourselves to be masters; we can put on canvas the characteristics that make the tree or the animal, produce the color of the sky, etc., but still we are not a master. We are but duplicating on canvas something which exists in life, so that everything man does is but duplicating something that already exists.

With all this *as a sample*, can you not see how great your Innate is, how noble are these senses? And then to think that many of you, relatively little, insignificant people, will try to place your 40-year-old intelligence in competition with that which *can not anywhere near be equalled* by the production of Educated man. Man's every action was, thru Innate, first made a possibility. So fearfully, wonderfully and philosophically is the human body made that scientists are beginning to realize that all inventions are but infringements on Innate's patent office. Trouble and worry in the past could have been avoided and inventors made a careful study of the devices employed in making these human bodies. The principles of the block and pulley or the tackle could have been discovered ages before had our bodies been studied as a psychological unit; from cause to effect, or vice versa. There are several complete pulleys in the body, notably the movement of the eyeball inward toward the nose.

Engineers made exhaustive tests and experiments before they discovered that a hollow shaft or rod of iron or steel is twice as strong as a solid one. Yet Innate had patented this device in our bones. Every important bone is constructed on this principle. The ball and socket of the hip bones were the forerunner of the modern ball bearings, and it was the first self-feeding, oiling machine in the world. The value of air pressure and a vacuum was unknown to man until the last century, but every one carried the secret in the air tight hip joint which Innate Intelligence had designed to lessen the muscular effort to hold our legs upright.

Engineers have made wonderful progress in developing compound suction and circular pumps, but all of these principles are found in the heart, and this little pumping machine is still without a rival in the mechanical world. Innate has and will have had patented every device which has been or will be registered at Washington, D. C.

The principles of the safety valve for steam engines are not new. Our bodies carry the first safety valves ever designed. There are upward of two and a half million of them. They are

sweat glands. Each has a valve which lets off heat from the body when it gets beyond a safe temperature. We cannot stand a rise of more than 8 to 10 degrees and live. If, therefore, the two and a half million safety valves were closed for twenty-four hours, death would supervene.

In the ear there is a little device which is the original of our modern compressed air inventions. The delicate drum of the ear must have an equal pressure from the outside and inside to receive and transmit the sound vibrations. To make this possible the Eustachian tube was devised. Its function is to regulate the air pressure.

Very few things of worth devised by man can be found which have not in their fundamental principles been copied from nature, and in marine architecture the likeness is most clearly defined. As an instance of natural buoyancy in water a better example could not be cited than the fish, which, by means of the swimming bladder, is enabled to descend by ejecting the air contained in the bladder and ascend by refilling it. The submarine is patterned after this principle, with the exception that the air is always present in the air compartments and regained by pumping it out.

The fish which are the swiftest swimmers have pointed snouts, small fins and more or less cigar-shaped bodies, and smooth skins. This is well exemplified in the dolphin and shark, which are among the fastest swimmers in the fish tribe. The ordinary torpedoes and submarines have a general resemblance to these fish, as the illustration points out.

During the construction of the Thames tunnel early in the nineteenth century, Brunnel, the celebrated engineer, found great difficulty in boring through the soft clay formation without running a terrible risk of an in-rush of water. While examining a piece of timber honeycombed by the burrows of the ship worm, or teredo, he conceived the idea of a boring shield in several sections. This type of shield is now in use, thus adding another to the innumerable inventions conceived by watching nature.

No sensitive electrical device is more carefully protected than the spinal cord in its movable frame of vertebræ. Innate has adjusted it with more precision than the movements of the best watch.

A whole line of important patents could be evolved from a philosophical study of Innate. In the splicing of broken bones Innate can give the best surgeon pointers. When a bone is broken the splintered ends are surrounded with osseous celis until firmly held in position. Then gradually a layer of bone is placed between them and soldered together. All the physician can do is to bring the two ends together so that the joint will be, in a measure, smooth and even. Innate does the rest.

Perhaps you remember Mrs. Catherine Otto, who was, a few years ago, a fortune teller in the west portion of the city. She hit it very close, *sometimes*, and frequently was far from the truth.

The old lady saved some twenty-five thousand dollars. A young lady called upon her, for a professional purpose, and Mrs. Otto "read the cards" which portrayed that her husband was going to desert her. She grew despondent and committed suicide. Mrs. Schmidt (Mrs. Otto's daughter) convinced her that a damage suit was to be brought, thus persuading Mrs. Otto to transfer all monies. The old lady, after the transfer, seeing the falsehood, began legal proceedings. The daughter retaliated with "The mother was insane, therefore incapable of taking care of such properties." She had been a former tenant and a patient at this time, therefore I was drawn into the case, as an expert witness, to testify as to whether, in my opinion, Mrs. Otto was or was not insane. "Is Mrs. Catherine Otto insane?" "No." "How do you know?" "There is no cause existing." "What do you mean by cause?" "That her atlas is in its normal articulations." "What do you mean?" "That if an atlas is subluxated it makes abnormal the functions of the brain. Mrs. Otto has her atlas in normal position, as I have examined time and again. If this be correct, there can be no insanity." It rather took this attorney aback. He said, "What do you mean? Do you know what senile dementia is?" "I do. Yes, sir," I said, "Mr. Attorney and your Honor, what is the object of wasting time and going into detail; if there is no cause, why discuss what *might* have been had there been a cause which I have failed to find?" After a few more questions the case rested. Mrs. Otto received judgment. It was my pleasure to be informed later that this reasonable and positive testimony swerved the jury.

Chiropractors deal with impressions and that which interrupts their expressions. It may be that an insane person is able to *sense* normally, but interpretation or expression is insane. It may be that an insane person sees, but that alone does not make normal interpretation, which is insanity or diseased brain.

What is to be done in insanity? Go back to *cause*? Adjust that and return that brain to its normal capacity and capability. Interpretation then will be normal and expression follows likewise, then what have you? Coördination—health, in all that the word implies.

If impression be given full power to deposit itself in the brain, normal interpretation follows and Innate brain can and does send forth responsive impulses and these are given an uninterrupted channel and are allowed to deposit themselves in tissue and are expressed; then coördination—health—exists. It positively cannot be otherwise. The circle is made from tissue to brain cell and reverse, a circuit unbroken. Action must follow.

Nervous System Chiropractically Considered

In discussing the nervous system we have a question that is unlimited, but I shall outline its subdivisions in point of order: First, the embryonic nervous system; second, its development; third, location; fourth, function; fifth, how function is performed.

In studying the embryonic nervous system we must consider what a child consists of. We are aware of what the embryo consists. For those who were not present I shall briefly allude to it. The embryo is that expansion of cellular tissue from germinal cells that takes place in the uterus. The spermatozoon consists of the male constituents of a human being. The ovum consists of the necessary female elements. The fusion of the two makes our future unit. Neither alone has all the ingredients. The two amalgamated make the child.

The brain as a whole, is the first organic enlargement after consolidation of these elements. From this is expanded, at a specific inferior point, a minute filament or cord, which elongation is in proportion with the brain. The unfolding of the one is equivalent to the *extension* of the other.

That which enlarges first eventually proves to be the brain system (brain, spinal cord and peripheral fibrillæ). I wish to carry "The Nervous System" a step farther than is considered by medical or osteopathic anatomists of today. None speak of brain as the organ from which *all* nerves have their origin. *Gray*, as the standard anatomy, and the nervous system that it gives, is that external portion from the base of the skull outward. "The brain is a thinking organ and is used with voluntary movements. All others are sympathetic or reflex from the spinal cord, solar plexus outward." The osteopath has the same abdominal plexus brain standard. These schools accept and teach that the brain is a part of the voluntary nervous system only.

I shall speak of the physical brain and spinal cord, which can be seen or sensed, *united with the mental*. I will teach the function of the nervous system, considering the same from a philosophical and physical standpoint.

A great many think philosophy a science beyond their reach. It is not. It is comprehensible for the light thinker and unlimited for a philosopher.

The M. D. considers your body upon the physical plane. He studies physical diseases, treating them with physical medicines, expecting to stimulate or inhibit physical organs. He does not know about nor look for assistance outside of the physical. The osteopath has the same physical anatomy, pathology and etiology, but using a different method of treating them. The brain is to him a thinking organ, but the how, what, which and who is beyond either of their comprehensions.

I shall aim to put my thots into illustrated form. This process impresses a more elaborate and practical intelligence.

In considering the embryonic state of the brain, let us consider one (Nervous System) germinal vesicle, which is a microscopical vessel of germinal cells. The term "germ" is considered here as *collapsed* cells of microscopic size. A process of evolution takes place—development. Each progressively swells and, leaving its vesicular bars, takes up a residence upon the outside. Many germs continuing the same process soon form a definite membrane, which, according to texture, quality, capacity, shape, deposition and character, is called a brain. Let us suppose that each brain has one million expanded cells. As they assume maturity in form each must have a prolongation—the nerve fibrilla. This process fulfilled, we have a brain system, brain, spinal cord and peripheral fibres complete. The spinal cord, with fibres, is but a continuation of the brain until each function terminates in a tissue cell. If the brain consists of one million brain cells, a greater quantity of fibrillæ must be the result; consequently there will be one million tissue cells.

This formative process is accomplished during the foetal life of the child. At birth it is thoroly formed and the expansion taking place after birth is necessary to keep the form to normal.

To pursue this study we must know that the Innate or body building brain has thoroly expanded at birth—reached its normal in form. Its location, within the skull and the continuation of it by fibres passing, as a bundle, thru the spinal foramina and the branches to organs, will be considered briefly but broadly.

Suppose the stomach has two hundred *brain* fibres running to it. Could we start at this organ and so minutely trace each, or the 200 collectively, thru tissue, past or between arteries and veins, thru muscular fibres, they would eventually go thru the inter-vertebral foramina into the spinal cord. Could we still pursue the *same* fibres we would find them continuing their identity thru the spinal cord, each landing at an individual brain cell. To weigh the idea farther, judge a tree. If the trunk could be exactly dissected, its "grain" would be found to consist of millions of fibres, some large, others small. If the trunk consists of 2,000,000 fibres, its expansion above into foilage must correspond. For instance, the first branching divides into two, one containing two-thirds and the other one-third of the original number. Division and subdivision continues nutil every leaf has its stem, consisting of seven or eight fibres. Could we take any one of these, as small as they are, trace it thru the leaf, into the steam, to a branch, from that into a larger one, to the trunk and thru that, it would be found ending in the ground as individual fibres. This brings to notice a cell *to* cell expansion philosophy, connection being made by the intermediate—grainy fibre. Brain cell (in ground) manufactures impulse, its expansion fibre—acts as a *direct* conductor to superior

tissue cells. The same comparison can be made in any vegetation or animal.

Without wishing to detail proofs or authorities it is sufficient to state that brain cell to tissue cell connection, by means of individual fibres, is demonstrated on all cases of vivisectional experiments that are made upon the brain. I am not in favor of vivisection to prove these points, for Chiropractic work has been reasoned from living actions, *without* vivisection, yet I refer to these to substantiate what a cruel torturing method has also proven. To stimulate any small portion of a brain by electricity means to increase the functions in a definite portion of the body, which always corresponds with location in the brain in all animals or humans alike, showing a systematic arrangement between organs. To change the position of the stimulating electrical needle is to *change* the scene of action. These experiments can be performed in a like manner as often as desired with always the same results. To turn on a heavy current is to reach the same conclusions, the action being deadened. To pith the brain or utilize other means of increasing or decreasing the functions of the brain is to always prove the exactness of localizing the place from which distant functions have their origin.

Before birth the child has two brains builded. Both are at work; one is being worked thru and the other with. After birth two brains are being worked thru. There can be only one conception of this statement; one analysis. Chiropractic has named these two brains Innate and Educated. Innate, that is, the intellectual power, that precedes creation, transmission and expression; which formed the child, which is there previous to, at and after birth; the most prominent, indisputable, subdivisional character of this faculty being the educated mind. Innate Intelligence is capable of governing or directing all circulatory functions at any period in which she is present in this composite form.

That Innate Intelligence is capable of directing the child's functions, how to suckle the breast, mixing milk with saliva, juices of the stomach and intestines; creating nutriment, making fecal matter from the remainder and expelling it from the body; controlling the kidneys in proper action; directing serous and blood circulations, and yet that child may not be one day old. *There* represents an intelligence greater than man can place in comparison. This Innate *Intelligence* directs all the functions of the body at birth, during life, and ceases to live, in the same volume in a physical body, at death.

Death, as we ordinarily think of it, is a term that cannot be applied. Nothing is dead. Death expresses only an equivalent stage, the same as disease does. For illustration, let us say that normality is equivalent to 2,000,000 cycles per minute, and 1,500,000 is equivalent to disease; when the volume of Innate impulses is reduced down to 2,000 vibrations per minute, we have not death, but a state of comparative death when placed beside the greater

quantity. We have different degrees of life and many phases of death. When we speak of volume we always speak of action. We would not know volume without having the power in connection with a material thing. We would not know whether there was 2,500,000 or 2,000 impulses unless we observed the thing materially. There must be at all times a union of material with immaterial.

On the reverse we have an educated intelligence. This begins life as an organ *to be* expanded according to the whims and fancies of each individual, gradually unfolding until death.

Someone advanced the thought of four nervous systems in the body, but I would say this is according to what interpretation you place upon the word "system." It is really improper to say the "secretory system" because it could not be excretory unless it has something to excrete, therefore, we have to have an intaking system, and one would not exist without the other, therefore the "system" should include everything that is necessary to make it complete in its expression of function. I would not call that portion of the nervous system which has its origin at the periphery and its ending in the brain a system—it is only one-half of a system, but this added to that portion of the nervous system which has its origin in the brain and its termination in the tissue cell (the other half of the system) would complete the cycle and we would have a system. So I still maintain that man has *two* complete nervous systems.

I shall, in a condensed manner, illustrate Innate. We *know* there is something that exists in and all around us, sometimes called an unknown power. What is this? Religious people call it God; persons who do not know call it Nature; another would name it subconscious mind; more call it intuition. It has a variety of names, but I shall give, what is to me, the most practical. This "power" is an intelligence, expresses individual characteristics. What it is, why and how expressed, the latter especially is a practical branch of Chiropractic philosophy. My Innate Intelligence is not God, but for want of better I shall refer to it as an emanation. This supply of superior force is being supplied constantly, but it is not *Innate in me* until it passes thru transitions. This sunbeam, as it were, must pass thru a sieve called mental. What remains passes onward, thru the mind. Each step brings it nearer to a physical, utilizable level. Having passed thru the two ethereal processes, let us now make of it a practical substance by proceeding thru the brain, converting it to a reality—mental impulse—physical power—life.

Let us consider relative sizes and values of these brains. The crude diagram represents, as it were, the two brains, the superior two-thirds delineating the Innate Intelligence; the lower one-third Educated Intelligence. Innate guides two-thirds (if not more) of our body; Educated the remaining one-third. Innate mental impulses control all functions which exist *within* the physical being

I have for some time made the division two-thirds to one-third. This has always been hypothetical—it might be seven-eighths to one-eighth, or one-fourth to three-fourths, as regards weight on a scale or as regards size in measurement, but in point of value and quality and the portions of the physical body over which it has dominant control, there is no question but what it is in the largest majority of the human body—whether it be two-thirds or not, that question I cannot answer.

Innate Intelligence has control over every tissue cell in the human body. Educated Intelligence has control over just a very small portion of the external muscular system—Innate guides the rest, every tissue cell in eight and sometimes nine functions.

Educated has to do only with that which is external. When I wish to see it is with my Educated; when I talk, the same is used. Voluntary movements are managed by impulses from the latter brain, but I do not digest my food with it. The kidneys or bowels do not act at command, neither is innervative nutrition carried on by it. The majority of you—I am out of the usual—not knowing specific, pure and unadulterated philosophical Chiropractic, *try* to and voluntarily *aim* to guide Innate in running the body. When there is a lack of pepsin in the stomach, because something is wrong, you, educationally, say, “I will artificially supply that chemical.” You have been educated to do that. A Chiropractor says, “Are you insignificant people, living thirty, forty or fifty years, capable of dictating to Innate how to run the body? Can you tell a mother how her newly conceived child must be made? Can you direct and utilize the forces necessary to make the son or daughter?”

Can you direct a force to remake something that made the force of which that thought was a product? Can you conquer, subdue or compel the source of your own origin to be changed? * * * Remember, when studying Innate you investigate that power which has always existed and always will.

The educated brain represents that expansion of material tissue cells that takes place between birth and death, but which is expressing the quantity of thoughts according to the degree and volume of normal cellular expansions of mental impulses coming from the Innate brain. The educated brain, then, in its quality, as well as quantity of thought, is something insignificant compared with the other.

Let us observe the divisions of the functions of each. We have roughly mapped the two brains, their relative significations. Each brain is divisible into many lobes; each is, in turn, composed of abundant cells. Each cell has its fibrilla; every lobe its multitudinous fibres; each brain its cable—both cables joined, is the spinal cord before inferior division takes place.

Separation into lobes gives to each the property of being a medium through which a different range of creation of impulses can be placed which, by its peripheral expression, proves it to be a

specific function separate, different and apart from the range of vibration indicative of another function. No. 1 permits the output of mental impulses which when expressed are calorific in function. No. 2 is contractility. I shall name the third reparatory; 4th is nutrition; 5th, excretion; 6th, secretion; 7th, reproduction; 8th, expansion; 9th, sensory, almost indefinitely into the number of Innate functions which are involuntary to Educated. The heart action, for instance, is beyond educated mental control, yet but one of the many mental servants of the Innate mind. From lobe No. 1 issues hypothetically fifty thousand fibres.

These go from that portion of the brain to a common center (external to the magnum foramen), there meeting the bundles of other lobes, all passing externally to meet the large cable from the other brain, then pass outward as one to begin an almost endless branching to every organ and tissue thruout the body.

When lobe No. 1 sends forth a continuous stream or current of 50,000 mental calorific foruns, unceasingly and unhindered, you have a normal calorific expression known as heat thruout the body.

That lobe, and that alone, has the function of conversion of power into calorific impulses.

Let us take the next. From this comes impulses which when expressed are (to us) involuntary motor. I will here state the difference between voluntary and involuntary motor. At will I can and do pick up the eraser. Suppose it was a hot stove and accidentally my finger touched it. "*Unconsciously* it was jerked from the stove;" "*Intuitively or reflexly* it was removed." This action was repeated so quickly following the reception of the impression that was interpreted and adapted to, that it proves itself to be an (innate) voluntary intellectual impulse. *There* was a voluntary intellectual impulse; one that showed reason, thot, discernment, discrimination; that came from the Innate brain before I, educationally, had detected that my finger was on a stove, hot or cold.

My dinner is in my stomach; that is, I believe so, tho it may have passed into the bowel. I cannot say to my stomach, "You are working too fast—go slower—because I, educationally, have no way of directly knowing that such is a fact. I do not know what is or is not present, what is going on there; whether secretions are lacking or in excess; whether quantity and quality are normal; therefore it would be folly to pass judgment upon something which I have no means of determining. The actions that are produced there are Innate voluntary motor impulses, therefore such actions are not within the range of control, direction or transmission of the educated foruns.

The third is sensory. When my finger, not intentionally, touched the stove, there was an impression that traveled in 1-500 of a second to my Innate brain, from where there responded an *intelligent* impulse, which when placed into action, at the periphery of an efferent nerve or nerves, took my finger from it.

Life—functions; Health—normal functions; Disease—deranged functions; Death, no functions.

A live nerve, like a “live wire,” is made so by the current sent thru it (thru the wire from the dynamo, and thru the nerve from the brain); each may be said to have functions.

A subluxation that pinches, or presses upon, a nerve, may be likened to a rheostat on a live wire. The rheostat interferes with the current that passes, or would pass through the wire, it resists, keeps back the current, changes the functions of the wire, also the motor or lamps on that wire. While in the case of the rheostat it is supposed to regulate the current by the resistance, it may interfere with or derange functions of the wire, also the motor and lamp, putting both motor and lamp out of service.

When a dynamo is burned out (dead) it can no longer gather or propel the current through the wires and the wires cease to have functions to perform as before, and the rheostat that once kept back, or resisted, changed or deranged the functions of the wire, no longer interferes with or has any effect on the functions of the wire, as the wire has ceased to have functions, therefore the presence or absence of the rheostat does not change the system, or any part of it, and in such a case it could be removed and then put back again without affecting the motor or lamps that were once active, but are then dead (have no functions).

Should there be a corpse that had subluxated vertebræ pressing upon nerves, in that case there would be no functions interfered with, as there would be no life current to be sent (the generator or generating force being absent in the human body), and the presence or absence of a subluxation would make no change in nerve function, without being changed they could not be deranged, therefore there would be no disease nor life expressed.

In referring to animal life, disease, death—death does not come until disease is finished. Disease, when it is finished, brings death. Disease is but deranged functions,—no function (death) does not come until deranged functions (disease) is finished. Deranged functions, when finished brings no function (death). Therefore, deranged functions (disease) is the product of subluxations—displacements—and death is the product of deranged functions (disease).

No functions (death) will not be further commented on in this, but: Deranged functions can be made normal in the human body by Chiropractic (hand fixing). A Chiropractor replaces the displaced vertebræ, increasing the caliber and capacity for transmission thru the impinged nerve, so the nerve function can become normal. With normal nerve functions, we may be said to be in health.

The brain is the instrument of the mind—is the generator of the nervous system. The so-called “nerve supply” is in reality but a *mental current* sent thru the nerves by the brain and is the

real life current; the life of the body, and it is thus carried to every organ of the body.

This generative force, sending the life current, causes the nerves to have work to do—functions to perform. Also the current is carried to the organs of the body, causing them to do work—to perform functions. Thus it is that all functions of the body are made and controlled by the Intelligent mentalities of man.

Any interference with the normal action of the nerves in carrying the life current deranges their functions, and thereby deranges the function of the organs to which they carry the life current. Deranged functions are diseases, and are caused by displaced vertebrae impinging the nerves. Deranged functions can only be made normal by having the displacements replaced, giving free and normal action to the nerves.

Live things alone are sensitive, the nerves are filled with life which they are carrying to the various organs of the body, and they also carry impressions to the brain, where they are interpreted as sensations when the intellectual mind has, thru the medium of the brain, interpreted them.

This same process may be carried indefinitely thruout. Each body has many glands, the liver, thyroid, spleen, each secreting an oil and chemical; as it is secreted it is sent out by the excretory. Each ingredient requires right tissues and substances and power to produce it. All are actions of Innate voluntary motor, differently located.

Many other functions come from distinctive lobes of that brain. If you hold in your hand a human brain, you have no life. Give to that brain, properly placed, its Innate, then it has life. Connect with the brain nerves, and you have transmission of life. Place at peripheral endings of these nerves, tissue cells, and you have an outlet or proper substance for the expression of that which is distantly manufactured. Do you begin to grasp what life is?

"Life—The state of being which begins with generation, birth or germination, and ends with death; also, the time during which this state continues; that state of an animal or plant in which all or part of its organs are capable of performing all or any of their functions.

"Of human beings—The union of the soul and body; also, the duration of the creature having an immortal *life*.

"Philosophical—The potential principle, or force, by which the organs of animals and plants are created and continued in the performance of their several and coöperative functions; the vital force, whether regarded as physical or spiritual."—*Webster*.

The scope of the educated brain is limited. It is confined to those organs which are necessary when coping with the external world. My eye has an Educated voluntary and Innate voluntary optic nerve; the ear has the similar two sets of nerves. Each sense has its two sets. My extremities have voluntary nerves. We have

a few voluntary respiratory. The scope of *this* brain, is comparatively, as one-third is to two-thirds. The *functions* of *this* brain is to first convert, second to give impetus to *voluntary* impulse from brain to tissue cell, regardless of whether a muscle, finger, back, stomach, the thigh or any other portion of the body is to be moved. Do you doubt the supreme value of nerves—conductors—conveyors of impulses from brain to tissue cells?

We have to the left a good skeleton. Let us study him as he was. In that skull was a brain. From that went downward and thru the spinal foramen, where this steel rod is, a spinal cord. If you will notice closely, we have where these pieces of chalk are, small openings. Chiropractic is the first science to give utterance to these ideas in the rough; the first science, and *The P. S. C.* the first school that made these famous by calling special attention to them, for at that point is *the cause of all* disease. Nerves branch from the spinal cord inside of the spinal foramen. Brain nerves emit thru the intervertebral foramina. Immediately they divide *and* divide, sub-divide and sub-divide again, until every tissue cell, small as it is, has its fibres ending at or into its structure. I have before me four individual Innate voluntary brain cells, one from calorific, the second from nutritive, the third is contractility and this from the reparatory lobe. Back of them exists an Innate Intelligence which gives power, unlimited, so that they can give impetus to nerve fibrillæ and if connection be unhindered, normal expression will be the result. In our next illustration these four fibres enter one tissue cell, each of which must have heat, action, nutrition, and can be repaired if injured. *What* is life? As long as brain cell No. 1 can transform and give to nerve these impulses, and the nerve can and does convey these calorific impulses uninterruptedly, will not this cell always be warm? Can it be other than *normally* heated? Suppose that midway between brain and tissue cell I pinch (just enough to irritate) that nerve—slightly impinge it, what will take place at its peripheral? Excessive heat—*too much* heat. The majority would say "Fever." The latter expresses nothing. You have been taught it, but that is no reason why we must retain it. *Excessive heat* tells something. I shall produce heavy pressure on No. 4. A heavy pressure paralyzes; slight pressure stimulates. The resultant symptoms are, no more nutritious impulses pass beyond the point of pressure, hence decomposition at the peripheral—tissue cell. With excessive heat it decomposes quicker than if heat was normal. In addition to the foregoing I shall place pressure upon this reparatory fibre which cannot now conduct reparatory brain impulses. What happens? Death. We have the combination of symptoms necessary to produce it. There is no nutrition or reparation; hence, excessive heat makes it much faster.

Suppose I should make another combination and slightly press upon this fibre conveying motor impulses. We have motor paralysis, yet reparatory may be in perfect order. This is, in a measure, depleting tissue, but reparative and nutritive fibres are

undisturbed, therefore will repair it. *Life* will continue to be partially expressed, only laboring under difficulties. This is why "I don't feel sick, but I am not well. I am at the store or doing my housework, but I do not put the pleasure or vim in it that I should like." They are not bedfast, but are working under difficulties, trying to maintain a 100 per cent normal when but 60 or 75 per cent of impulses are possible. To a person who *has* health hard work should be the greatest pleasure and life worth living.

Mental impulses of right character, quality and quantity is a necessity to make functional-health, and if Innate Intelligence can interpret incoming impressions accurately and convert the external—into impulses, then there is only *one* thing that can make disease—the hindrance or obstruction to mental impulses from point of manufacture to that of expression, with the impulse conveyor and nervous system.

The allopath steps to the bedside. "Johnnie is sick! Put this under your tongue, please. Temperature 103! How have your bowels been?" "Constipated." "Have you any pains?" etc., etc. "Mother, every hour mark on this card his temperature." Tomorrow he calls. "Let me see the chart, please. Johnnie has not been eating much?" "Just a little milk." "Here is *another* chart. Keep a record today." Day after day this is repeated, finally saying, "The fever is running higher. I don't know what to call it yet. It has not taken a definite form. Meanwhile I will make out a prescription; give one teaspoonful every two hours." After seven to ten days he tells the mother, "We will have a long siege, for this is typhoid fever. I do not know whether he will pull thru or not." The M. D. continues from 21 days to 16 weeks to call three times a day at \$2 a call. He has a perfect vocabulary of symptoms, but when it comes to the most common sense deductions of *life* and *the cause* of disease he is found groping with superstitions.—Chiropractors will take a back step for none of them; I don't care who they are, what college or university they are from, or their position in life. The M. D., in entering the sickroom, only senses the physical. This is all he knows or cares to investigate. He does not consider sickness as incoördination to life. Suppose that child should die; there would be an absence of life—death. The typhoid child is but giving vent to abnormal quantity of life giving impulses, therefore is partially alive or dead. *Why not study life*; what it is and how it expresses itself. And if there be disease, what causes it? You say, "The physician in studying the cause." Where? *Outside* of man. The Chiropractor confines his research, for each specific cause, *inside* the body. The M. D. drags foul marshes, sieves the air, digs into the bowels of the earth, examines water, hoping to find something which *makes* man sick.

The human or animal body represents the actions of three laws ("Law—Nature. The regular method or sequence by which certain phenomena or effects follow certain conditions or causes—the uniform methods or relations according to which material and

mental forces act in producing effects, or are manifested. * * *”), spiritual, mechanical or chemical, united as one triune, the first equaling the other two in point of control or as a regulator. As long as there is perfect union of these there is perfect health. Just as much as the first assumes an approximate proximity towards perfection it is just that much not normal. This machine, like all others, is run by power, called mental impulses, made in and thru the brain, which is connected with the body by a system of nerves thru which this force passes in currents; inducing the highest exemplification of the intellectual power. Functions are names given to discriminate between these actions. Any interference to the passage of these vitalizing currents produces abnormal functions—disease. In speaking of “spiritual” as above I wish to confine my thought to Webster’s definition, which is “Spirit-Life, or living substance, considered independently of corporeal existence; an intelligence conceived or apart from any physical organization or embodiment; vital essence, force, energy, as distinct from matter. The intelligent, immaterial, and immortal part of man. * * *”

Let us find a condition, in man, that impedes mental impulses, then we will have located exactly what causes a partial depression of life. The spinal column is composed of vertebræ, one set above the other. Each is capable of limited movement. The body is not changed in any direction but that you move each vertebra slightly. There are ligaments, muscles and tendons attached to them. Suppose, in the ordinary pursuits of work, you would receive a jar, a concussion, or a wrench to your body or back, one vertebra should, by such “a mere trifle,” slip beyond its normal confinement. Then we have subluxations of vertebræ. This is not *misplacement* or dislocation, but a partial luxation; enough of a *displacement* to produce pressure upon brain extensional fibres as they emit between the intervertebral or movable foramina, producing slight pressure. This hinders the conducting ability of brain nerves to convey mental impulses to tissue for expression.

What *name* to give this or that disease depends upon the degree of pressure, and *what combination* of functional nerves are involved. The combination of functions differ, and can be studied endlessly because no two people have the same.

There are two sides to every question. The M. D. and the Osteopath see no further than symptoms—the effects or results. What are you going to do with your patient? “You need a general tonic or stimulating manipulations to strengthen these organs.” “Where are you going to give me this general tonic?” “In the stomach.” Suppose the pain is in the foot. “Put it in the stomach.” If it was in the bowels? “Put it in the stomach.” What is put into the *stomach* never gets where it was intended. This man, after being drugged for months or years, still has the same trouble. That is *one way*—to treat effects.

The Osteopaths have a better way. They examine for specific or general “spinal lesions” (which when located are effects or symptoms to a Chiropractor), and then devotes time *trying* to cor-

rect them. Contracted muscles, bad or impeded circulation of blood, are the Osteopathic standbys, and no matter where found they must be treated. He does not take into consideration what life is any more than the M. D. The D. O. *tries* to do with his hands what the M. D. aims to do with drugs. Both are good in their place, but *are as nothing compared to the direct and specific methods of Chiropractic* in localizing the cause of disease and its adjustment.

What does the Chiropractor do? Personally, if the patient would say, "My stomach is not right today," I would explain his case as regards to cause and nothing more. Were I to take that stand, in general practice, ninety-nine of one hundred cases would say, "He pays no attention to my case." It would be of more value to him and the world to allow me to spend one minute in studying cause than for him to talk four hours about his symptoms, but it, apparently, does the patient good to tell his troubles to someone and he evidently thinks that that is what I am compensated for. For instance, a patient from Oklahoma recently said upon his arrival, "Tell *me* what disease I have." At 2 p. m. he entered the clinic. "Class, this patient wants us to tell what his diseases are." How did I do it? Examination revealed several subluxations. *Each* has its organ or organs to which nerves, which branch therein, go to. As a natural sequence so accurately did we locate every trouble that I believe if we had gone further we could have told his character. Starting from cause and exactly describing effects, in a person never seen before, has its scientific value. Only digital spinal palpitation was used. To apply mechanical appliances would be to get mechanical action and results. Specific, pure and unadulterated, philosophical Chiropractic uses Innate faculties. Conglomerated mixtures must resort to external measures which are as inaccurate as they are bunglesome. The Chiropractor spends his time in finding *that* which is causing *incoördination*. Coördination is harmony; *incoördination*—lack of harmony between mental and physical. The Chiropractor locates and accurately adjusts *the* cause of *incoördination*. That is simple. Why not think?

I am getting thirsty; what shall I do? I had to think voluntarily before I could put into execution the act to pour water from the pitcher. Do you realize that thoughts must precede manifestation? Suppose there had been something wrong so that the thought, in the form of mental impulse, could not pass thru that nerve and express itself in that arm? That would be inharmony between that arm and mental impulse. I want the water, but the arm cannot be utilized as a medium to obey the brain—*incoördination*. The physician agrees there is something wrong in the arm, but don't know just what and where. The Chiropractor has definite knowledge and a specific adjustment, not to exceed one-half a minute, which as soon as corrected must, without question, return function.

I have aimed to confine my remarks tonight to two systems of nerves, the Innate and Educated.

Innate is a master mechanic, such as you and I cannot duplicate. The workings that she has accomplished under abnormal conditions are wonderful masterpieces of intellectual reasoning. Where there is a fractured bone she may build a scaffold, followed by a rigid bridge, from one fragment to the other to strengthen and build it to normal. She can and has made pivot or spindle joints where formerly there were none. She will burrow an opening thru bones for the passage of nerves.

Brain System Compared with Nervous System

You study two nervous systems as commonly understood. You have the cerebro-spinal and the sympathetic nervous system of the present-day anatomies. The cerebro-spinal system, in some way was not clearly understood, not definitely taught anatomically, nor comprehended physiological, a myth as a system which in some way, far fetched, tied up with theories, connects itself with the body and controls some of it. When we thought, we moved the hand, hence there was a connection some sort of a way. The brain controlled the hand; one material thing dominates another of like kind.

In the sympathetic nervous system you have 129 brains variously distributed, a small portion inside the skull, the most of it up and down the outside of the spine, the rest distributed through the body, one great brain known as the belly brain in the abdomen, and some of these brains in the legs, arms; then there is a heterogenous "tag,—you-are-it" system running around these 129 brains, and 121st tags the 61st, and there is a running around which is controlled by "sympathy," which, we are told, is "by means unknown." In no way does the sympathetic nervous system definitely connect itself with the brain. It is presumed that fibres enter a ganglion on the side of the spinal column. Another fibre starting there runs up two or three inches and ends, or seven or eight inches and ends, and eventually it is presumed that an impression which starts at the finger tip goes to the first ganglion and there is plunged into a whirlpool, swirled around, and then sent on to the next whirlpool where it is whirled some more, and after going through an endless system of whirlpools it is presumed to get back to a finger tip. Scientifically, there is no system; physiologically, it is not definitely classified; neurologically it is a superstition, and thus we find ourselves trying to find something definite; specific, tangible, real, and we are surprised that all ends in a complexity out of which we cannot unravel a single knot.

Looking at man from a scientific standpoint, we find he is composed of knots within knots, whirlpools within whirlpools, and cesspools within cesspools, and we don't know where we are after a long space of time and study. Contradicting that, we look at the average man as he is, and as you and I with our average sense observe him, and he doesn't present to us such a seemingly complex arrangement. His actions seem to be definite, the result of deciphered ideas, thoughts deduced, distinctions made between hot and cold and other attributes which go to make contrasts.

This seems to represent a system quite specific, definite, exact, scientific, logical, practical, and simple, and then we try to decipher what he amounts to.

Man is man, the same man you observe is the same fellow I look at; the one I study is no different than the object others investigate; therefore we must be agreed as to what is the individual to whom we look. I do not deny the existence of the system that has been studied, written, pictured and portrayed by anatomies, notwithstanding that I have been frequently quoted in that sense. I deny such as a "*sympathetic*" nervous system, only so far as it is a SYMPATHETIC system, the nervous system I concede, but as for the physiological explanation of sympathy I cannot see. Laboratorial findings I grant, the deductions made thereon for the purposes of physiological study I severely question. The system of nerves erroneously called "*sympathetic*" is a laboratory finding, hence I admit as a fact, but the abstract deduction that it is "*sympathy*" that goes thru them and regulates function is, to all purposes, malicious in application. It is the title and study thereof, to which I direct thot, not to anatomy. I trust that this will clear this point for my friends try to make excuses for my seeming inconsistencies and my enemies make capital of my apparent ignorance.

As I have already shown, from a sympathetic nervous system standpoint, I cannot tell and I do not know of anybody that can, where this system begins or ends. It really has no beginning or ending, at least not anatomically, no one teaches that it has a beginning or ending. Its boundaries are without limit, because of no beginning or ending, or no point where we may start and work toward an end. It is a boundless circle, space void of space, if we can conceive of such, if their physiological explanation be true.

The function of the sympathetic nervous system is to regulate functions by sympathy. The functions of the cerebro-spinal nervous system is in some way to link the brain with the spine so that the spine can link itself to the superficial tissues. That is the common concept of what it is presumed to do. Its limitations are to regulate the so-called voluntary functions. I do not know of any other kind than voluntary. Educationally, I pull the cord to ring the bell. To the thought was given force, thought force went down from brain to arm, muscles received thought force, acted and utilized the force; or, the force utilized the muscles to execute the thought that was inculcated into the force.

I am not educationally digesting peanuts in my stomach which were put there a few minutes ago. We presume this is an involuntary act because we educationally are not directing and controlling that process of forces. This is also a voluntary act. As soon as the peanuts got into the stomach, there was an impression which followed an afferent nerve to the brain. There Innate Intelligence voluntarily interpreted the impression which was as follows: There are peanuts in the stomach, they must be digested, I will

proceed to act upon them. Voluntarily, in a process of adaptation, that sends down force, inculcated with that, goes to the muscles, causes them to contract and peristaltic motion to begin, these peanuts in the stomach are disintegrating because of the persistency of Innate desiring to break down the peanuts to utilize them to a nourishable end.

This becomes a voluntary act. I know of no involuntary that or act in the body, inside or outside. The desire is to heal a fracture, to weld skin following a cut, to coagulate serum as it oozes from the cut, the growing of hair on the head, all are voluntary. If discrimination was to be made educationally, to classify these functions, I should say voluntary in relation to the educational intent, and super-voluntary in relation to the Innate intent, because one is above the possibilities of the other, but both are voluntary.

This brings to mind the idea conclusively broad that there are two kinds of acts in our body. If Innate were to speak, it is a question whether she would not say one. We have a voluntary act wherein the educated brain is in connection with educated function, and an Innate brain which is in connection thruout with the balance of your body in its functions. Thus man is classified into two. There are two divisions of brain, naturally there must be two divisions of nerves, two divisions of the material part of the body. If it were possible to divide, there would be an Educated and Innate man, but the two are blended so that each works with the other if we have sufficient of each to harmonize. There are two systems wherein the brains are connected with all that is below or beneath them. To make both understood and properly titled, I would say the proper term is "brain system."

If you were to speak of a sympathetic nervous system you get an idea that here is a system of nerves which are being regulated, as a system, by sympathy, and all three words contradict each the other. You cannot have sympathy regulated by system; you cannot have a system regulated by sympathy; you cannot have nerves organized into a system being run or managed by sympathy, because sympathy is "by means unknown." Anything which runs by means unknown cannot be classified or organized into system.

We speak of the cerebro-spinal nervous system. In this sense we are practically saying a brain is one part and a spinal cord another, and we are classifying portions as if each were a total. This is incomprehensible. In other words, the title limits the observation.

To make all clear and broad, we introduce a new idea. If we were to study an act a la Innate, in the production of a child, we find that the first thing she makes in this uterus is the brain. Were you to watch the process, you would find that from each brain cell there is a prolongation superiorly and another inferiorly. The superior prolongation is short, and the lower, or inferior prolongation becomes long. The brain cell extends itself, stretches

and elongates and when many brain cells are doing that, these fibres, extensions, or prolongations congregate and a sheath is wrapped around them, the sum total being called a spinal cord; from that begins a process of lateral branchings going into every organ, so in reality this thing called a nerve is a portion of the brain cell, because it starts from there.

Let me give a natural comparison. An acorn is an oak tree a hundred years hence. It is all there, the trunk, branches, leaves and future acorns. To prove this, I put the acorn in the ground, watch it. In time it splits its shell, up comes a sprout. Later a branch comes, then another and another, they are coming from the acorn, and finally the entire tree is formed, and all the fibres we see cut in the branch, when traced clear down come from the acorn.

It is the same with you. All the fibres in the body, spinal cord, or organ, trace them fibre by fibre, they all come from the material planted in the skull and are prolongations from it, therefore the proper name is "the brain system." To further classify it, we speak of an Educated and Innate brain system. We also in this application refer to the brain system in the sense that the brain cell blends into the fibre. The fibre blends into the tissue cell, the tissue cell blends into the afferent nerve fibre, that afferent fibre blends into a brain cell and there actually is no line where we can say here ends the brain cell and here begins the nerve fibre, here ends the nerve fibre and here begins the tissue cell. There are no endings or beginnings. At what particular fraction of a second is day-break? There is no way to classify. The night blends into day and day into night. The astronomers set a moment which they say is sunrise. But there has been considerable light in the sky before the exact minute they set. There is no place in Nature where that draws lines, it is a whole and blends into all. In this sense, these brain systems weave in, thru and between each other and have associated thots, functions, impressions and interpretations, and one big associated purpose, and that is what we all aim to elucidate.

Could you remove all other systems, such as blood, muscular, osseous and serous, and leave complete the brain system where the two blend into one, we would have a complete organical man. He would be a man because he would have every brain and tissue cell connected. It would include the meninges, scalp, all tissue cells, making a network, consequently you would still have the man, you could not remove all other systems, you could remove only the liquids which were not directly connected with tissue structure, such as blood and various excretions.

I want you to picture an average tree,—pine, oak, walnut, mahogany or hickory. Go below the ground, trace to the extremities of the roots, they are small fibrili, so small that they lose their identity in dirt. Trace them up and they lead to a larger fibre, then this larger fibre joins with another of similar size to make a still larger, until at last we are led into the tap root, which

leads us to the core or tree's brain. Come on up and there is a ground line. Trace up the massive trunk, it divides into two, the two making four, four into eight, eight into sixteen, etc., until you get to the leaves, and even there is one main fibre which sends off branches into smaller fibrili until they cannot be seen, by the eye, but under the microscope they branch until they get too fine for the microscope to detect.

I said the trunk divided into two trunks. Could you take the diameter of the two they would equal the diameter of one, the diameter of four would equal two, diameter of eight would equal four, and so on, with the exception that as anything divided, it becomes larger, not because of more matter or a greater number of fibres, could you count them, on the combined total of every leaf, than there is in the trunk of the tree. The sum total of all branches of the tree would not be in excess of that of the trunk, other things being equal, and permitting compressibility.

Man is the same. Take a brain cell, look to the superior portion and you find little fibres. Some run over to other portions of the brain to connect with other lobes, in this way we get association of ideas. If you could add all superior brain fibres you would not have a greater number than leaves the foramen magnum, which corresponds to the trunk of the tree. The only difference is, the tree stands on its base and we stand upside down. Any horticulturist will tell that a stationary tree has a brain, thinks, reasons, studies, schemes and circumvents ideas the same as movable man. The brain of the tree is near the root where superior and inferior fibres congregate.

In your observation as a Chiropractor, you reach the conclusion that every viewpoint, thot, condition, pathological change, adjustment, whether good or bad, to what degree and character this brain system and the force behind, work to the end of what you want to accomplish. Unless you put that final interpretation you lose, you are not going to comprehend or understand the object or appreciate what you do to your patient. Whether you study anatomy, physiology, microscopy embryology, philosophy, science or art, place upon it the interpretation of Innate force and Innate brain. Complete the Educated and Innate cycles to the brain. Link these and make one and that represent life as it is. If you place that interpretation upon studies, then you are a Chiropractor. Limit yourself to any portion short of that, then you are not a Chiropractor in the broadest sense.

A Viewpoint on The Nervous System

Man has only one brain, there is only one mass of matter that performs the function of being an absorber, condenser or acts in the capacity of a sponge to this force which we gather and which becomes the "I" of you or me. That place and that matter is within the skull or the cranium; is surrounded by meninges; and should there be a continuation of the matter of the brain, that elongation does not act in the same capacity that the brain does.

This brain, anatomically speaking, is divided into two halves, a left and a right hemisphere; each is divided into convolutions, gyrations, lobules and lobes, etc., until eventually, anatomically speaking, we reach the brain cell. You will study this work from the anatomical viewpoint, and cannot give it too much attention.

My position calls for an explanation of the division of this brain functionally or philosophically speaking. Function is what a particular portion of matter does and how. The brain, functionally speaking, is divided into two portions—Educated brain and Innate brain. These are not Educated and Innate brains; they are two divisions of brains to which we apply a title as we view the kind, quality or quantity of function that goes through each. We have a brain through which an Educated mind works; we have another through which the Innate mind works; or, we have a portion of the brain through which Innate intelligence acts and another portion through which Educated Intelligence acts. Consequently, giving each portion of a brain a name appropriate to the kind, quality or quantity of intelligence that acts through it.

We make a distinction between the Educated and Innate brain because it is only the kind or quantity of thought that gives to it the attribute of quality. Innate is a name the same as Educated, but there is a distinction between; Educated being inferior, Innate superior; Educated being smaller, Innate larger; Educated being raw, Innate refined, thus giving the aspects of kind, quantity and quality.

I take that viewpoint because anything the Educated thinks has never been thought in kind, quantity nor quality that Innate would think upon the same did she receive from the same source. We think of generation or reproduction of life; Educationally and Innately we think upon sex organs; Educationally we could not, nor have not been able to produce a single generative organ, we have never so thought in quantity, kind nor quality sufficient to make a generative tissue cell, let alone an organ or a set thereof, not considering the functioning generative organs, but Innately the mind has thought kind, quantity and quality sufficient to not only make one generative tissue cell but millions, form, position, functionate and reproduce them—all of which Educationally we could

not do. Here is an instance of where two intelligences, residing within one unity have both thought upon the same issue, yet one makes and remakes, the other cannot even conceive. That shows there is a distinction to be made.

Man is two men, he is Educated and Innate. There are dual personalities in each and all. We are here together. But we, as Educated people, are ninety-nine per cent Educated fools. We have been taught that whatever we know Educationally—that was all; whatever was Educationally taught and whatever we accepted as Education, that was the height of knowledge, that there was nothing greater or higher; that was the summum bonum of Intellectual aspirations. Consequently, it is conceded that he who goes to school, colleges or universities the most; gets most from books, who has the largest vocabulary of words; can string the greatest number of thoughts into ideas—that man is the best Educated man, that man stands higher in the viewpoint of the mass of people.

Innate has been observing through a long space of time. This intelligence is a part of the entirety of the accumulation of thoughts. How old it may be I do not know, so old that it has been turning over man's matter, to such an extent that it represents to our Educated minds almost perfection, so that he who gives the greatest play to his Innate Intelligence in acting through the Education is the best knowledge condensor of facts known and of many facts unknown Educationally.

Man educationally knows little; Innately much. Education is but a reflection of what you possess, Innately; because everything you know Educationally, is, was, and will be first conceded, first known by your Innate, then handed to you to be Educationally thought upon, from which you will deduce a fact which might be in line with the known Innate knowledge fact.

You should counsel with your innerself; with the other half of self. I use the term "other half" because it is necessary to divide myself into two to be a totality.

I, on the reverse of most persons, believe that the animal, which perhaps has no Education, is our superior on the common ground that what we steal Educationally from Innate is not to our credit, whereas the animal, which does not steal anything, is a better Innate knowledge acting animal than we.

Man is dual. This is true functionally, for by Educated volition, I cause my arm to move by certain thoughts; I might walk, run, jump, swim, etc. Then there is another line of functioning over which Educationally I have no control.

For instance, a bone is fractured. I have no control over that fracture, Educationally. It is Innate that comes to the fracture, expands osseous cells, makes ossific material necessary, deposits it in the right place, right quantity, unites segments, heals and causes it again to assume normal condition. It is Innate which heats or cools, causes secretions and excretions, controls all the essential nine primary functions which Educationally I could not

control one impulse of let alone making the impulse in the right quantity, quality and right kind or deposit it at the right place at the proper time. Thus, we are dual on first concept.

Psychologically, functionally or physiologically speaking, we are divided; therefore—those statements being true—we are philosophically dual. Anatomically, you will not find this division. Anatomically, a muscle is a muscle regardless of whether it pulls up or down, whether on the anterior or posterior of the arm, forearm or upper portion; upper leg or in the thigh, in the abdomen or upon the scalp. Regardless of location, muscle is muscle, bone is bone, nerve is nerve; but functionally speaking there are two kinds of muscles, nerves, men. There is that Educated man who Educationally thinks in an Educated brain, has Educated nerves to transmit those thoughts, Educated muscles to execute them, Educated afferent nerves to carry impressions to the Educated brain, Educated mind to interpret those impressions, an Educated mind to reason upon them and an Educated process of adaptation.

Then, again, there is the Innate mind working through the Innate brain, which has Innate efferent nerves to transmit Innate efferent impulses to the Innate set of muscles which muscles give origin to the impressions, and those impressions travel back to the Innate brain, where Innate mind thinks upon, interprets, and brings into play this high qualitative adaptative Innate Intellect. Thus man is divided into two—an Innate man and an Educated man.

Each of these divides into subdivisions. Here is a left and a right Educated mind the same as there is a left and right Educated brain; then there is a left and right Innate mind, the same as there is a left and right Innate brain. So can we speak of the right and left Educated thoughts and the right and left Innate thoughts, because the thought is made in a place for a place and the place where it executed shows the place where it was made and for what place intended. Consequently, there is a division in thought, according to the side upon which they may go.

Each of these divisions is again subdivided. There is a left anterior and a left posterior Educated man, there is a right anterior, and a right posterior Educated man. So we may go on with our process of division until we reach the conclusion that every cell is either Educated or Innate and have every tissue cell in its classification. Man is, at least in the broadest principle, a dual, systematically and mechanically-made being.

There are two scalps, a left and a right; two eyes, noses, tongues, mouths, cheeks, temples, ears, hearts, lungs, kidneys, bowels, legs, arms. You will say at first glance, "I see where he has two eyes, noses, ears, lungs, legs, kidneys, arms; but I cannot see how two scalps, tongues, or bowels." This is divisible clearly pathologically. Many is the individual who has a paralysis of the muscles of the scalp and only be paralyzed on one lateral half, the line being as completely made as if drawn from the bridge of the nose back to the spinous process of the axis. Hemiplegia-smile on

one side of the face, the other being paralyzed, showing that the face is divided. Individuals taste upon one half of the tongue and not upon the other or can talk with one half and not with the other.

Individuals are deaf in only one ear; blind in only one eye; have a headache in only one-half of the brain and not in the other; or a well-marked headache in fore-brain, or Educated brain, and not in the rear or Innate brain.

By marked contrast, take the generative organs during the "periodical term," when the female has a known periodic headache. This is never in the fore-brain, but always at the base. If the individual has a prolapsus of right ovary, that individual has a drawing heavy pain upon the left hind-brain only—the left ovary involved, upon the right hind brain.

Show a case of hemiplegia where the individual is suffering from paralysis of one-half of the body, whether it be crossed or straight—by "crossed" means affecting the right face and the left body or the left face and the right body—or if it be a complete case, one entire lateral half without crossing—and the organ commonly known phrenologically as the "Organ of Hope," situated on top of the skull is soft, there will be an adaptation in that part of the brain, tender to the touch; the individual is despondent. Scratch the organ of hope or stimulate it, the patient brightens temporarily. I speak by way of showing that the "Organ of Hope" has a certain function and is involved in hemiplegia. A case of paraplegia has other places which are tender; a case of monoplegia always has its marked place in the skull. (The superior Meric System elaborates this.)

Man is divided into the divisions outlined. When you study brain anatomically you must not lose the value of divisions of that brain functionally, carry that constant connection that exists between a portion of that brain and the steps through which it may go in carrying out its functions.

The "Brain System" includes the brain or brains, the function or functions, the Education or Educations, the names, locations; the spinal cord and all its tributary nerves, the aspect of its functions, where they go; also this anatomical brain in action. When you view matter, view what it does; what makes it act; how, where the actions go; how they are transferred from place to place. If you take that viewpoint, "Brain System" will be of practical value.

Cranial Nerves

The question is to know whether we believe our senses or not, conclude that we know what we know or whether we do not know what we think we do, or we may know what we might not know, or we really know more than we think we do. Of course, to get such an idea is to doubt yourself, to doubt your conclusions, and whether the idea of today is right and the idea of yesterday wrong.

Anatomy gives a sufficient knowledge of the twelve cranial nerves; it tells their origin, paths, insertion and functions. I am not going to dwell except to name, locate and give function then pass to the question:

Name.	Function.
1. Olfactory	Sense of smell.
2. Optic	Sense of sight.
3. Motor oculi	Moves around the eyeball.
4. Trochlear	Draws the eyeball inward.
5. Trifacial	Divides into three branches, one going to the eye, another going to the superior maxillary, and the third or lower going to the inferior maxillary.
6. Abc̄ cens	Draws the eyeball outward.
7. Facial	Going to the teeth and those muscles having mostly to do with mastication; principally the muscles involved in tetanus or lock-jaw.
8. Auditory	Sense of hearing.
9. Glosso-pharyngeal	Which takes in the œsophagus, stomach, lungs, diaphragm, liver, trachea, bronchii; in fact, the entire respiratory tract.
10. Par Vogum	To muscles of neck, chest and abdomen.
11. Spinal Accessory	Going to the muscles of the spine and other tissues.
12. Hypo-glossal	Going to the muscles that move the tongue.

Anatomy tells us that some of these have their exit through foramina at the base of the skull; anatomy does not tell us that any have their exit through the magnum foramen or other path through and into the spinal cord, and have their exit through any intervertebral foramina; it does not give such a path for any of the cranial nerves. Should we presume, on our first premise, that the functions which these twelve nerves are said to manifest have their pathway through the intervertebral foramina, we begin to digress from the known facts of anatomy. If anatomy is correct

as to the origin, paths, and exits of the twelve cranial nerves that have paths and exits through the cranial foramina, and these are solid, fixed; then if the Chiropractic principle be true that we have a diminution of the size and circumference of the nerve so as to diminish the amount of current going through that nerve to make disease, and the premises of anatomy and Chiropractic both be correct, then there would never be any possible disorder of the functions mentioned, such as smelling, seeing, movements of the eyeballs, teeth, etc., it would be impossible to have abscess, decomposition, decaying of gums, sordes; tetanus; hearing affected; anything wrong with the pharynx, tongue, œsophagus, stomach, lungs, diaphragm, liver, trachea, bronchii, respiration; because it would be impossible to produce pressure upon these nerves. Man would be comparatively well if his twelve cranial nerves were doing their duty according to anatomy.

But we find that man's hearing, sight, breathing, respiration, teeth, etc., are involved. Nobody is exempt from these common diseases. As a premise, Chiropractic must be wrong or anatomy is only partly known; both cannot be right. If the premise of Chiropractic that a nerve must be under impingement to produce a disease be correct, and if anatomy is correct that these nerves are so located that they could not be under such a form of pressure, than one or the other must change or enlarge its view-point to correspond.

The question arises, are those nerves where anatomy says they are? To ask such is ridiculous, foolish. Haven't they dissected and found them? Didn't the same type say the world was square and stood on four pillars before Columbus, and because of this they were right? Columbus said they were wrong; he went to the corners, fell into endless space, and came back with Indians, and found there was another side to the corner—he was right.

How did anatomy reach the conclusion those nerves were there? They certainly did not hypothetically assume something as imaginary. They have seen, graphically portrayed, photographed, reproduced, furnished their form; in reality they are there. No disputing the concrete fact. There are nerves where they say. Dissection must be proof of the existence of nerves.

In what way did they prove the physiology, the function that went through these nerves? It would be impossible to prove such in a dead cat, dog, horse, or man. They could not prove the existence of a function when there wasn't any. In what way is vivisection performed? With and without anæsthetic. The knowledge of anæsthetics is of recent origin; consequently they use it to relieve tortured animals. Previous to that they cut and got at these various sensitive nerves. They stimulated without anæsthetics; they found that they led to a certain place, and by stimulating a nerve under specified conditions, certain actions occurred; that was proof that this nerve was optic, because the eyeball moved whenever that nerve was touched. They also found while working on a certain nerve that every muscle moved from the torture that

it was going through. They could as conclusively have said that this nerve went to the bowels, because they evacuated after this pain, as to have said that it went to the eyeballs, because they rolled with agony. Modern vivisectors cannot rely upon the conclusions reached, because torture makes all nerves twitch and jerk

What accuracy is there is the use of anæsthetic to vivisection? Our animal is under ether; he is dead to the world; his body is stifled in action, feeling is paralyzed; that is the object of an anæsthetic—to paralyze function and feeling; and proportionately as feeling is dead, proportionately is responsive function absent. Here is the animal, with its functions and feeling gone; yet that is the animal under test to see whether this particular nerve has a particular feeling, function or responsive action, or not. That hardly seems a conclusive test to demonstrate the function, etc., of a nerve. These animals cannot speak, hear; they bark with pain, jerk with agony, and that is all they can do. No matter how much an animal is under anæsthetics, they contract muscles more or less, squirm the body, the same as a person does under an operation. That pleases the vivisectionist, because he watches for movement. Nothing definite can be reached under that phase of work, although they do form conclusions, establish and teach physiology accordingly.

I read from Dr. Morat, on this particular question, the twelve cranial nerves, and his view-point:

"If we take as a foundation either the different sensations which are aroused in us by external provocations, these also differing in their nature and mode of action, or the motor phenomena which are most directly associated with these sensations, we may divide innervation into five great systematizations, or principal categories, which will be: visual innervation, auditory innervation, tactile innervation, olfactory innervation, gustatory innervation.

"Sensation is, in fact, the quality which is most characteristic of the nervous system; this latter being, of all the tissues, that which displays it in the highest degree, and which, on account of its complexity and its organization, confers on it its highest value. This first conception is a matter of ordinary knowledge. On the other hand, all sensation is intimately connected with motor actions, which may affect areas of the nervous systems at the same time various and distant, but of which some are immediately dependent on these sensations, and, as such, are characteristic of them. Each sensory system is a sensitive-motor apparatus, which, in a certain measure, is not isolated from the others, but capable of being so isolated; that is to say, is complete in itself. Functional links exist between these partial systems, to as to insure the unity of the nervous system, and by it the unity of the living being. This second conception, which sanctions the intimate connection between sensation and motion, has *begun to be generally* adopted. Finally, sensation allows of an infinity of degrees and of graduations, from those which have their fullest expansion in the superior senses,

down to those quite obscure ones which interpret our most elementary requirements. In writing a complete history of the nervous system, it becomes necessary to connect these subconscious (sometimes called unconscious) sensations, with the motor acts related to them, to the distinct sensations of the superior senses, according to their functional affinities. This idea of an *obscure* consciousness *governing all living actions*, even those which appear quite mechanical and automatic, *is the most modern* of all those we have passed in review, and daily gains more adherents.

"Specific Activities.—The nervous system is an assemblage of partial systems, each, in an isolated manner, presiding over some function of a determinate nature. None of these can replace any of the others or be replaced by them. This partition stands out very clearly when the nerve system is considered at its periphery, either at the point of arrival or of departure of the stimuli by which it is traversed; it becomes more and more obscure in proportion as we penetrate the depths of the system—of this statement the question of cerebral localizations is the proof. We shall then start from the extremities of the nerves, ascending nearer and nearer to the brain, tracing in this way, according to their kind, the great divisions and subdivisions of the nervous functions. The sensory field is particularly favorable for the determination of this kind of division.

"Sensory field; its divisions.—The sensory field is divisible at the periphery into five parts, corresponding to the five senses. . . . Out of the infinitely varied movements by which it is surrounded, our organization has chosen five particular orders; those are the source of all our knowledge. . . .

"It must be observed that, among the undulatory movements of the air, as of the ether, our organization is not restricted to, or has not succeeded in adapting itself to, all, but only to a small number amongst them: to those for the ear, which are comprised between 32,000 and 50,000 vibrations in the second, about eleven octaves; to those for the eye which are comprised between 450 to 880 trillions of vibrations the second. But as those media are traversed in all directions by vibrations of every length, which coexist and are superposed without being confounded, this restriction does not imply any difficulty or real gap in the exercise of the senses.

"The organs of taste and smell are affected by excitants whose physical nature, modality, and medium of propagation are absolutely unknown to us, but which it is possible to conceive of as being also vibratory changes of a special nature. . . .

" . . . Each organ of the senses is provided with a special resonator. The shock of the external medium, when it transgresses certain limits, is non-existent for the resonator; but when it possesses the right totality, it finds a gate of entrance in this sense, and penetrates the nervous system, where it finds itself in conflict with a crowd of others, and, remaining there a longer or shorter period, leaves it in the condition of a motor phenomenon.

"But, to a fact which we call psychical, or one of sensibility, in one word, to sensation, in opposition to the physical fact of impression.

"Specific nature of the sensation.—We have said that impressions are specific, and we may add that sensations are also specific, for to each particular modality of impression a particular modality of sensation corresponds. Before ending in the deepest part of our being, in the most abstract notion of general ideas, which has the conflict of sensations for its origin, these latter put to port somewhere in the nervous system; there is, therefore, a functional partition of sensations, as there is one of impressions.

"Sensation is a fact of purely internal observation; can only be defined by its contrast with the *psychical* fact of impression. It is not in the very least a geometrical representation of the physical changes which give birth to it. The ignorant person who can distinguish between a sound and a color has not the least conception of a sonorous or luminous vibration; the educated man also is acquainted with this detail, or believes that he can explain it. *Sensation results from an association or stimuli. It is a synthesis of these stimuli effected in the nervous system.*

"Uniformity of function of the nervous elements.—Further, we may add that a shock of a particular sort which has arisen in a sensitive or sensory resonator is never transmitted to the brain by the sensitive or sensory nerves, retaining its original character. All these shocks, specific in their origin, are brought back to a single or at any rate to almost a uniform state, the nerve wave, as soon as they enter the nerve system, properly so called. The nerve wave (with some trifling differences) appears to be of the same general form, or, in a word, of the same nature, in all nerves (sensory, sensorial, or motor). Each neuron, taken by itself, is functionally equivalent to any other neuron; there are not any specific neurons, properly so called.

"Specificity of the neurons.—The data furnished by morphology and experimentation have so far pointed to the predominance of fundamental resemblances between nerve elements, rather than to real differences between them, except as regards those which are contingent and without known relation with the function of these elements. There must, however, exist between one and the other certain quantitative or qualitative modifications, in order that these elements, by being associated, should be able to form functionally differentiated systems. These modifications may bear only on characters which are but little obvious and be themselves individually very unimportant. The multiplicity and the complexity of the associations are sufficient to enlarge them and to elicit from them very dissimilar effects. On the other hand, these modifications may be confined to certain parts of the neurons—for example, to their extremities in the areas, by means of which they become associated the one with the other. In fact, more notable and more significant differences are discoverable in their polar fields than in the axons of their cell bodies.

"Further, we are ill equipped for the struggle required in order to seek for and understand these differences. The nerve wave, of which so much is heard, *is almost unknown to us* as regards its real form. Some facts about its rate of progress are all that we possess. . . .

"It is obvious that the optic nerve is not a chemical for light, nor the acoustic nerve for sound. But the component elements of each of these two nerves have not, as regards structure or properties, anything which distinguishes the one from the other, or from all the other nerve elements. They possess the common excitability of the latter, but nothing else. The luminous ray appropriate for the stimulation of the retina has no effect if immediately thrown on the optic nerve; and this because the adaptative apparatus is lacking in both cases. But, on the other hand, ordinary, commonplace excitations of the nerve system, such as pressure, pinching, electrization, excite these just as all other nerves, and so give rise to specific sensations corresponding to the specific excitant of the organ to which they belong. . . .

"There are within us sensorial systems which react specifically to every stimulus which reaches them. These systems, at their surface of contact with the exterior, are furnished with special apparatus (organs of the senses) *which select*, from the excitatory shocks of every form and origin by which we are surrounded, those which can in an isolated manner penetrate into each of these systems, to the exclusion of the others. Thus is created for us a determinant relation between each order of sensation and the external excitant from which it originally arose. This relation *is an empirical one*, but is sufficient for the daily requirements of existence; it teaches us all that is necessary for us to know, but not concerning everything external to ourselves.

"Sensation is a phenomenon of evolution; it is at the same time both a process and a progress. . . . We have said that the stimulus invades the system and advances therein in the fashion of a wave whose form becomes more and more complicated in proportion as it approaches and reaches the cerebral cortex. In this forward march of the impulse, where is the precise locality of sensation? Has it an exclusive and defined habitation? What parts are sufficient for or necessary to it? What does experiment tell us on this subject? How are the facts which it has displayed to us to be interpreted?

"An effort has always been made to arrange the recognized facts concerning the structure of the nervous system in accordance with the information furnished by observation. Interpretations have necessarily varied according to the state of our knowledge on these points and also with the general theories obtaining in biology.

"Sensation is a phenomenon which impresses us by its unity; the nervous system and the component systems which it includes are, on the contrary, distinguished by their complexity. Hence, no doubt, arises the repugnance which has been felt to attaching and superposing the first of these to the second; and by *logical*

sequence the converse tendency to imprison sensation in the smallest known biological element—namely, the nerve cell.”

He does not say, “We have proven this by dissection, vivisection, or anatomy.” He says that by a “*logical sequence*” they reached the conclusion that the nerve cell receives the first impression which goes to make sensation—by logic, not by demonstration. He further says: “For ourselves, our nervous system is one and indivisible; this is because we comprehend it with internal senses, which precisely realize its analyses, or syntheses. On the contrary, the nervous system of one of our fellow-creatures appears to us in all its complexity; because we grasp it with our external sense which is incapable of analyzing it. In the first case, the nervous system is ourselves; that is to say, the subject, on which its quality of sentient being confers its unity. In the second case, the nervous system is outside ourselves; that is to say, an object which we can divide into as many partial beings as the power of our means of analysis permits. The two operations employ different and in no way superposable modes of procedure. The internal sense, like the external senses, proceeds by analysis and by synthesis; but their situation in relation to each other is such that the one often builds up that which the other analyzes, and, reciprocally, an absolute harmony between the two would cause all the practical benefit which we draw from the arrangement to be lost.” After working upon sensation at great length, Dr. Morat reaches all his definite conclusions as a result of logic, often reaching a conclusion in logic which is not proven by experiment—which, in fact, is disproven; but we cannot understand the experiment, and fall back upon logic.

A patient comes to the Chiropractor; he has lost the sense of smell. You who believe in the twelve cranial nerves physiological system, as taught by medical standards, and you who believe in the premise of Chiropractic as regards to pressure upon nerves, must turn to this patient and say, “I am sorry; there is nothing in our science for you.” Being honest to yourself, you take that standpoint, because the first cranial nerve has to do with smell. It does not have a common exit in any intervertebral foramina, and is not subject to pressure following a subluxation. Consequently, your premise of adjusting the subluxation to restore smell is wrong, and cannot be involved. You shake the hand of your patient, shed a tear, and let him go. But you don’t do that. You would do as we have done. Finding smell involved, you search the nose for a tender nerve, trace that to its inlet into the spinal column between the third and fourth, or the fourth and fifth, cervical vertebræ. If the right nose is affected, the tracing will be on the right, down to the right intervertebral foramina; if on both sides, you will trace both sides. Your tracing leads to certain vertebræ; you palpate and find them subluxated; adjust the subluxation, and smell returns. The question is, is this a nerve that has to do with smell? Seemingly it does. Seemingly we have done something that anatomical research, physiological-vivisectional experimentation has not done. Is anatomy right? It is. Is physiology right? It is

not. As a general conclusion, logic says the man who gets results is right. The man who fails must be wrong in his premise.

Take the second cranial, or optic, nerve. An individual has atrophy, which is but a neurasthenia; but you, being the true, honest disciple of Kirke's Physiology and Butler's Pathology, and being the good, conscientious, sincere Chiropractor, believing in its premise, must say to the blind patient, "I am sorry; there is nothing we can do." But there is a question or doubt in your mind, because, after saying these things, your patient has bared his neck and you are already tracing from the eye to the fourth cervical, and you will find that on adjusting the subluxation a stimulation runs like a flash to the eye, and the patient says he saw the color of your coat. He says it is blue, and he is right. There is no fooling this man; he did see, because you stimulated temporarily the impulses running to that eye. You adjust the fourth cervical subluxation, and sight was restored. Did you trace on optic nerve, or not? Does it have to do with sight? Is it the main nerve, or an accessory? Is it important or unimportant? Have we found an optic nerve not known by the anatomist? Can it be that we have found a nerve that has never been under dissection? You are joking, with logic, by demonstrating its existence in giving to man the thing he wants—sight.

This third one moves the eyeball. Your case has strabismus to one side or the other, or both. There is nothing you can do, anatomically and Chiropractically speaking, because this nerve is beyond reach; it is beyond being trifled or fooled with by a movable foramen which might produce pressure upon it; but it is a fact you can trace these nerves to the fifth or sixth dorsal, and, under adjustment of the subluxated vertebra, the eyeballs straighten. Maybe it is an accident which might have done so without adjustments; but it is peculiar how it occurs in 99 percent accidents in a 100; the medical man doesn't get such accidents. Have you discovered something that you have not? Are you forcing yourself to believe there is something, when there is not?

We have analyzed the twelve cranial nerves; we have showed new tracings for each. (See Vol. 6 of this Library for elaboration.) I believe man has a broader nervous system than is given to us by present books; I believe man has the nerve systems the book says he has; but he has more—a system independent of that. When you properly understand Chiropractic work, you will appreciate this distinct brain-cell-to-tissue-cell nervous system.

How are the Cranial Nerves Reached by the Chiropractor

I have asked, "How are the cranial nerves reached by the Chiropractor?" The Chiropractor reaches no nerves; he reaches the surface of skin over the backbone. Surface has no thickness. Therefore, he reaches something which has area. But the force that is impelled from his hands to the surface of the skin is transferred to the vertebra subluxated, which force, by shearing itself with vertebræ above and below, moves the subluxated vertebræ into place, releases pressure upon nerves, and permits normal amount of current to flow through nerves which anatomy has seen fit to misfit physiologically the "Twelve Cranial Nerves."

Man forces himself to reach a conclusion: (1) there are twelve cranial nerves, as taught by anatomy; or (2) they are not there, or (3) if they are, they do not do the things he says; because the Chiropractor, playing upon other conditions, utilizing his force at other places, upon nerves, restores function of the thing that he says goes through another set of nerves.

Sight is said to go through the optic nerve, which is in the rear of the ball and passes through the optic foramen, which is beyond the reach of the Chiropractor. It is in the skull, from origin to insertion; that is, none of its fibres go to or through intervertebral foramina. Any subluxation that might occur anywhere in the spine could not in any way affect any branch of the anatomist's optic nerve. Consequently, if a subluxation did occur, it could not phase sight. But sight is phased; people are blind. The Chiropractor by his adjustment does restore sight. The Chiropractor does trace fibres from the eye to an intervertebral foramen. These nerves are tender. Under stimulation they return sight for a second, seemingly to prove a fact unknown heretofore. Is this nerve an optic nerve, or is it not? Patient says yes, Chiropractor says yes; Chiropractic adjustment proves yes; anatomist says no, "because I haven't found it, and the nerve that I have found is the one I dissected."

We have the pneumogastric nerve, the one said by the anatomist to go to the stomach, lungs, etc. Then, presuming that the pneumogastric did come through an intervertebral foramen, a subluxation causing pressure on that nerve would necessarily affect lungs and stomach. But we find lung trouble without stomach trouble, and stomach trouble without lung trouble, and we find the two together, sometimes. We find the Chiropractor can adjust the third and fourth dorsal and restore function in the lungs, or adjust the fifth or sixth dorsal and restore function in the stomach. He can adjust either without the other, or both voluntarily; and then we wonder what the "pneumogastric nerve" really has to do with the voluntary or "involuntary" functions in these organs.

The anatomist undoubtedly has found them—he has dissected them; the Chiropractor undoubtedly has traced, adjusted, and they got well. Who is right, and who wrong? It would be as inconsistent to believe the functions of the twelve cranial nerves as taught anatomically, and adjust the spine merically, as for a mouse to play “America” on a pipe organ. It is one of the inconsistent impossibilities.

You cannot be a consistent Chiropractor and adjust the fourth cervical and restore sight in the eye, and believe that the optic nerve has its point of origin at the rear of the eyeball and goes to the optic thalami.

All of the common diseases of the eyeball, in which sight may be involved, are characteristic sixth dorsal subluxations wherein we get these diseases where the eyeball and its position is involved; where we have subluxations found in connection with granulated eyelids, etc., at the twelfth dorsal.

There are no known nerves—anatomically—from the fourth cervical to the eye; there are no nerves from the sixth dorsal to the eyeball which control the movement of the sets of muscles around the eyeball; there are no nerves, anatomically, that radiate from the twelfth dorsal to the eyelids or the glands around the eye; but specific adjustment at any of these three places will change the incoördination as outlined. Anatomically, then, where are you in your knowledge of neurology?

Function is specific and direct—not indirect. You have sick headache; you go to the physician, who says, “You are sick at the stomach, are you not?” “Yes.” “Then it is the sick stomach that causes the sick headache.” But you go to another physician, reverse the order, and say, “I have a sick stomach.” “Then it is the sick headache that causes the sick stomach.” Go to a Chiropractor; he finds a fifth or sixth dorsal subluxated; finds pressure upon nerves on the left leading to the stomach, upon the right leading to the head. If he adjusts the subluxation to the right, releases the pressure upon the left, the sick stomach is no more; if he adjusts the subluxation to the left, releases the pressure upon the right, the sick headache is no more; adjust the subluxation superior or inferior, as necessity demands, your sick headache *and* sick stomach are both gone, showing the directness of the nerve flow of mental impulses through two different places. There is no such knowledge of neurology in anatomies.

There are only two sciences that live by precedent. One is “law,” in which we do not want radical theories. The state supreme court judge says, “What has the United States court to say?” The judge on the district court bench says, “What did the state supreme court say?” The justice says, “What does the judge rule?” Precedent. If the justice were radical, the judge would rule it out; if the judge in the district court should be radical the appellate court would overrule him; but the United States supreme court can set at naught the entire case.

Congress makes a statute and says that any corporation that shall work in restraint of trade is criminal and illegal; and the United States supreme court, the body that it is, says that if a corporation should be operating within "a reasonable restraint of trade" is all right, places a radical interpretation upon—but there is no body to set at naught the United States supreme court.

The other science that is domineered by precedent is medicine. To side-step precedent is to bring forth ostracism.

The point is, we haven't enough independence in people of high position, because they play to the people underneath them for support. The people who can think new thoughts don't do so because they are afraid of what others higher up may say. The people who want to think radically don't do so because they are afraid; and the people who delight to do so write it, smother it away, and wait until people catch up, and then have it published. This is as true of anatomists as philosophers.

Sympathetic Nervous System

In the study of Chiropractic there is possibly no one point upon which we so radically differ, from all preceding schools, as in eliminating the so-called sympathetic nervous system. I shall endeavor, by quoting authorities, to show how much they are in the dark as regards the origin of "involuntary functions," and by so doing supplant it with a superior teaching of Chiropractic. The most interesting will be to enlarge upon the two direct systems, as taught by *The P. S. C.*, then quote what the sympathetic nervous system is as considered by medical (Osteopathy has the same) schools.

You are aware that the child suckles at the mother's breast; the bowels move and the kidneys of that infant act; it is nourished by the milk eaten; you even realize that "involuntary functions" are performed as thoroughly in the child, at birth, as in the adult, but have you ever studied the *why*, beyond the "nature" aspect?

The educated Brain is undeveloped, therefore cannot answer. The study of words is the study of how the educated mind can express its thoughts. The Innate Mind does not need words. It transmits its thoughts direct without the intervention of words to express them. Words combined in sentences and paragraphs never equal the clearness of the thought, no matter how carefully worded your language may be — it never quite says all that you have thought upon that particular subject, therefore some value is lost between creating a thought in one mind and giving the thought to another mind by words. Innate Mind loses nothing in transmission; thoughts are transferred exactly as they are created from one mind to another, therefore the second mind receives exactly all that the first mind thought.

That is why I say that the Innate mind is perfectly capable of thinking the highest type and form of thoughts at birth and is able to transfer those thoughts from the infant Innate Mind to the adult Innate Mind of the mother or father, so that there is a so-called material intuitive understanding between them and the child, but the educated mind must progress to the point where it begins to say *common words* first, such as "mamma" and "papa," which are words of a natural language. The chatter of monkeys and language of all animals is natural. Man has an educated language.

The educated mind forms words to express its thoughts. Innate Mind at birth is capable of expressing thoughts, but the Educated Mind is not.

From each brain emanates efferent fibres necessary to convey impulses to tissue cells which regulate the functions of the body and all afferent fibres which conduct impressions from the periphery to the brain.

The educated brain is as yet undeveloped, therefore cannot

answer. This is but one of the conspicuous differences between the two brains. The Innate brain is proportionately larger and has comparatively many more lobes than the educated. The latter controls all functions that come in contact with the world, the Innate all that pertains to internal man: its scope, therefore, is greater.

Each generative organ is composed of many lobes, as it were, and has its special function to perform. The lobe which issues calorific impulses will not propagate motor actions, nor will the excretive accomplish what is intended for secretive. They are confined and cannot compete with another. Each lobe issues its bundles. The many bundles of the Innate and Educated brains join at a common meeting place, internal to the magnum foramen—which cable is covered with three sheaths when it is commonly named “the *spinal cord*,” although I prefer “*Brain cord*.” This proceeds downward, representing the entire “nervous” system as it issues from both brains, through the spinal canal of the vertebræ. If there be such a thing as “twelve cranial nerves” they are but distant branches of divisions from the original 31 pairs as they divorce. I do not deny the existence of “12 cranial nerves,” but I will give to the same a *new path of travel*. Instead of proceeding direct from brain to the organ, *within the cranium*, I will follow their path, outward, through the magnum foramen and then through some intervertebral foramina, proceeding thence to its organ, within the skull by a direct and well defined path, *according to nerve tracing* which has many a time deduced those tender filaments from the spinal exit to the periphery where the affection exists. Adjustments at that point returning its functions. *These are facts and are substantiated by results.*

Superior to the atlas we have the first pair of branches, one to the left and its counter on the right. One pair divides between each two contiguous vertebræ from above downward. Although the cord proper ceases at the space between the second and third lumbar, yet branches continue to emit through the sacrum and between the sacrum and coccyx. The process from this point outward is one of division, separation, and again segregation into nerves and they into fibres, fibres to fibrillæ, which eventually terminate within some characteristic tissue substance. Generation commences at brain cell, which is then passed to an individual fibrilla, passes thence to the cable, through the foramen magnum, down through the spinal cord, emitting at its intervertebral foramina, thence through the same direct channel to its tissue cell. Retracing the path would be to start at tissue cell, proceeding until it reaches the spinal cord, continuing its character as an individual fibre until it reaches brain cell. Each fibre connects brain cell to tissue cell, or vice versa.

I have reasons why it is impossible to have a sympathetic nervous system. Let me allude to the last *Dunghlison's Medical Dictionary*, which is standard in every college. In speaking of this system, he says “Sympathetic, depending on *sympathy*. Sympa-

thetic affections of the organs are *those morbid phenomena that supervene without any morbid cause.*" Can you or I imagine anything existing without a cause? Is it possible that "morbid phenomena" live or die without a cause? I cannot conceive, as wild as my imagination may seem, anything which may exist without a cause, and yet *Dunghlison* gives such as a basis for his definition.

In speaking of "Sympathy," *Dunghlison* (23rd Edition, p 1082) says: "Sympathy. *Connection existing between the action of two or more organs more or less distant from each other, so that affection of the first is transmitted secondarily to the others, or to one of the others, by means unknown.*" "By means unknown" takes, from under the M. D. and D. O., the very props which they were *supposed to be upheld by*. When a Chiropractor has intelligent deductions of *where, how* and what those "unknown means" are, it fails to be a "Sympathetic Nervous System." Traceable knowledge of the Innate independent and direct nervous system fails, in all involuntary functions, to bear the slightest resemblance to a "sympathy basis." The M. D.'s and D. O.'s have been wearisomely toiling, for centuries, trying to build a superstructure that could shed common sense arguments; trying to account for involuntary functions upon a basis which has failed to demonstrate a result sufficient to make any honest doctor cling to it. Think of taking a "by means unknown" basis and from that work out a "sympathy" racket that a simple child would get confused on, let alone the many sincere men who have gone to their graves in despair that have failed to be any nearer to the solution at death than birth. And Chiropractic is the first school that scientifically connects, by nerve tracing, that gap between "mental and physical phenomena"; accounting for every act, voluntary or involuntary, from an intelligent basis. He need not say "by means unknown" to cover up his mistakes whether buried or living.

Dunghlison in his dictionary says "The great sympathetic is a distinct nervous system, supplying the organs of involuntary motion; for although communicating with both brain and spinal marrow, it does not seem to be immediately under the influence of either. Its special functions are not yet well understood. Dr. *Dunghlison* does not state *what* this nervous system supplies to "the organs of involuntary motion," although we suppose it does do a something, but just what this thing is is "unknown," because "its special functions are not yet well understood."

Cunningham's Text Book of Anatomy, p. 702, in speaking of the "Sympathetic Nervous System," says: "The sympathetic nervous system consists of a pair of elongated cords, extending *from* the base of the skull *to* the coccyx; connected *on* the one hand by a series of branches *to* the spinal nervous system, and *on* the other hand giving off an irregular series of branches to the viscera. * * * *The distinction is not absolute.* * * * The non-medullated fibres in the sympathetic system are derived

from the axons of the sympathetic ganglion cells. Some fibres *appear* to contribute to the formation of the comisural cord.

"The Morphology of the Sympathetic System. From a consideration of its structure, functions and development, there *appears to be two* separate structures represented in the sympathetic nervous system—the spinal and the sympathetic elements—it is certain that the cells and fibres of the sympathetic system possess a vital activity *apart from* their connection with the central nervous system. *The phylogenetic relation of the sympathetic and cerebrospinal elements in the system it is impossible to determine. It may be that the sympathetic system is representative of an ancient architecture independent of the cerebro-spinal nervous system, the materials of which are utilized for a modern nervous system; examined in every light, it possesses features which effectually differentiate it from the cerebro-spinal system.*"

Dr. Cunningham knows that functions are accomplished. He realizes they are not under the control of the will, but, like his predecessors, they start and end "by means unknown" and "no foundation, no castle." He strives to tell where this system starts and ends and I am still pondering. What its functions are I must reason "by means unknown." Isn't that logical, deductive reasoning? How long would such arguments exist if applied to the financial or commercial world? How long would it take to topple the greatest business if based upon "by means unknown?"

Morris' Human Anatomy, Third Edition, p. 879, says: "The Sympathetic System. It was *formerly* believed (showing that they change in theoretical anatomy as much as the physician in practice, according to fashion. If it was a *fact* or truth it could not be garbled) that the sympathetic and cerebro-spinal portions of the nervous system *were distinct* from each other, the sympathetic system being endowed with the supervision and control of the more vegetative functions of the body, whilst the control of the more animal functions were allotted to the cerebro-spinal system. *It is now known that the two systems are but parts of one continuous whole, and that the central terminations of both systems lie in the brain* (why did he not stop here?) and spinal cord; but though this close association is incontestable, it must be clearly recognized that the fibres of the cerebro-spinal nerves are more particularly associated with the voluntary muscles, the sensory areas of the surface of the body, and the lining membranes of the joints, whilst the sympathetic nerves and the cells to which they belong are concerned chiefly or entirely with the involuntary muscles of the viscera, the blood vessels, and the hairs, and with the secretory cells of the various glands."

After carefully studying *Morris* the mysteries are unsolved. He does come almost, but not quite, to it and then slides off. It is easy to see that *Morris* is an original thinker. But, to go too far would mean to be "churched," a thing no M. D. or D. O. pleads for. Fear has greater terrors than starvation and ostracism that is bestowed upon the original thinker or doer.

Dutton's Anatomy, 1892 Edition, p. 327, says: "The sympathetic nerves control the circulation of the blood, respiration, nutrition, and all the various *vital* processes. They are the involuntary nerves, not directly under the control of the human will." In his six pages upon this subject *he does not state where it starts or goes to*. If we would supplant "the sympathetic nerves" with "the Innate brain and fibre system" through its intelligent energy; and "they are voluntary to the commands of the Innate will at all times," it would make of the above quoted paragraph a Chiropractic thought.

Macalister's Text Book of Anatomy, 1899 Edition, has but little light to shed upon this subject. Although discussed under its various locations, none lead to a definite origin and point of insertion.

Eckley's "Dissection and Practical Anatomy," 1902 Edition, p. 355, says: "Function. To innervate viscera, glands, unstripped muscle fibre, bones, cartilages, fasciæ, and conduits generally not under control of the will." The "will" here referred to is the voluntary one. *The Innate voluntary will is not known* to the anatomical world, therefore, it cannot be talked or written about. Innate voluntary functions are known *of*, but nothing further than that they are "reflex actions" performed through a "sympathetic"—"by means unknown" nervous system. Isn't that a brilliant basis to account for Innate voluntary functions—the greatest intelligence which rules, creates and guides you and I—the greatest mechanical machine made? How *stupendous—is—ignorance!* Dismissing the knowledge of an Innate will and the "sympathetic nervous system" is not under the control of such, and that such a non-existing (to them) will does nothing to such a nervous system, what does such a system do is answered by "it reflects." *If, as Eckley says, "To innervate" what? What is this "innervate"? How can this be performed without a guiding control?* According to Dunglison, "Innervation" is "the *nervous* influence necessary for the maintenance of life and the various functions." "Influence. To control or move *by hidden*, but efficacious power, physical or normal." *Webster*. Can you fancy such a crude state of "innervation" without a general or commander? Imagine a battlefield with no officers whatsoever, each man shooting heterogeneously because he but *reflects* the actions of another distantly or remotely reflectedly noticed across the field, and then you can conceive of what a glorious old time this sympathetic nervous system is having within us for it has no head nor feet, comes and goes without any restrictions or bars whatsoever. No parents to guide it, no restraining or advancing control, for it is "not under the control of the will," and acts as a "connection existing between two or more—'men'—more or less distant from each other, so that the affection of the first"—perhaps the D. T.—"is transmitted—to the others—by means unknown."

Werner Spalteholz's "Hand Atlas of Human Anatomy," Vol. 3, p. 763, says: "Systema Nervorum Sympathicum is formed: 1.

By a chain of ganglia on each side of the spinal column, the ganglia *being united with one another* by vertical bundles of nerve fibres to form a longitudinal cord," and as yet we have no head nor tail. A ganglion is a knot-like enlargement upon the course of a nerve and each is supposed to be an independent center for the formation and dispensation of nerve power. "Ganglion they have been regarded as small brains, or centers of nervous action, *independent* of the encephalon, and intended exclusively for organic life. Ganglia are chiefly composed of vesicular neurine, and *appear to be* concerned in the formation and dispensation of nerve-power." *Dunghlison*. Upon each "spinal nerve" is one of these and at many remote points are many "centers." Center—"A collection of nerve cells to which external impressions are carried and whence impulses are sent out.

Reflex Center—"A part of gray nervous matter which transforms into a motor impulse a sensory impulse it has received." *Dunghlison*, 23rd Edition.

Where they are "united with one another," giving to this system at least 62 independent brains.

The anastomoses of nerves is referred to in *Dunghlison's Dictionary*, 23rd Edition, p. 754. "They extend from the nervous centers to every part of the body, *communicating with each other*; forming plexuses and occasionally ganglions."

What a confusion 62 or more generals would have on one battlefield. It would remind the observer of the pit of a New York Board of Trade. Common sense reasoning would unlimber such joints and determine that this would not be practical, that behind each movement must exist *one* intelligent brain to determine the character, quality and quantity of impulses necessary to guide and restrict distant functions.

Grey's Anatomy, Fifteenth Edition, p. 798, says: "The sympathetic Nervous System is (1) a series of ganglia, connected together by intervening cords, extending *from* the base of the skull to the coccyx, one on each side of the middle line of the body, partly in front and partly on each side of the vertebral column"; but as yet we do not know where it starts from and ends to. We are told it innervates involuntary functions, yet where this "innervating" force comes from, its guiding power; the *how, what, where and which* we are left to decipher as best we can. M. D.'s and D. O.'s *have not dared to think*; to grope with this weird material or challenge its existence, but try to demonstrate a different kind of an action by pleading to the internal with treatments on the external and thus fail to give relief to suffering humanity that so badly needs it. Will and *can* you?

Sabotta-McMurrich say in their "*Atlas and Text-Book of Human Anatomy*," page 238:

"The sympathetic nervous system presents a distinct contrast to the cranial and spinal nerve, as well as to the whole central nervous system, in that it included mainly the visceral and vascular nerves, and although it has manifold communications with the

cerebrospinal system, *it represents, to a certain extent, an independent system. It is composed of a number of independent centers which form a chain on either side of the vertebral column, the successive centers being united by short nerve cords.* The structure so formed is known as the *sympathetic trunk* and the ganglia inserted in its course are the *ganglia of the sympathetic trunk*:

"The ganglia of the sympathetic trunk are connected with the neighboring cerebrospinal nerves by *rami communicantes*, through which *the cerebrospinal nerves receive sympathetic fibres, and, conversely, cerebrospinal fibres enter the sympathetic nervous system, there being thus a mutual anastomosis.* The white rami fibres do not necessarily terminate in connection with the cells of the trunk ganglion with which they first come into connection, *but may pass these and terminate in a higher or lower ganglion, or even in one of the ganglia of the sympathetic plexuses.*

"*From the ganglia of the sympathetic trunk the branches of the sympathetic nervous system arises.* They differ from those of the cerebrospinal system in many respects, being in the first place of a grayish-white color, not pure white like the latter, since they consist mainly of non-medullated nerve fibres, and furthermore, they rarely have a straight course and they form long branches. Much oftener, almost without exception, they form sympathetic plexuses which, especially in the region of the head, extend along the blood-vessels, and especially the arteries, cerebrospinal fibers having a part in the formation of the plexuses, intended for the viscera of the thorax and abdomen. Imbedded in these sympathetic plexuses, especially the visceral ones, are numerous ganglia, some of which are very large and others microscopically small; they are known as *ganglia of the sympathetic plexus* and again give rise to sympathetic fibres. Many small microscopic ganglia may also be found in the organs themselves (heart, eye, intestines).

"The sympathetic fibres, like those of the cerebrospinal system, are partly motor and partly sensory, and the system *supplies* practically the entire nonstriated musculature of the body.

"The *sympathetic trunk* is a paired structure resting upon the anterior (ventral) surface of the vertebral column, almost parallel to the median plane. Each trunk consists of a number of ganglia arranged at rather regular intervals, and united into a chain by usually short connecting cords."

McClellan, in his "*Regional Anatomy*," Vol. 2, p. 200, is as clear and comes as near to Chiropractic thoughts as any I am aware of. This work is out of print because its author dared to be independent of the "Code of Ethics," as worshipped by men who think more of money than shattering idols.

In "The Region of the Back" we find "the very complicated courses of the nerve-fibres of the spinal cord to and from the medulla oblongata and thence to the brain have been most laboriously studied, *and there is yet much to be determined* regarding them. From delicate and careful dissection, from experiment and from observation of pathological changes, a great deal has been

learned, and the following description is now generally accepted by histologists, *but will doubtless be modified by future researches.*

"Spinal localization is naturally fraught with great difficulty, and, like cerebral localization, requires a most exact knowledge of anatomy. Much has been determined, much is inferred, but there is also much to be ascertained. It has been said by one of the ablest of modern investigators (Mills) that the value of a study in spinal localization depends upon the exactness with which phenomena are differentiated."

The latter paragraph tells much of the truth of all investigation. It has been made from and upon a sympathetic "by means unknown" suppositious base. It will be noticed that all authors refer to function as a "phenomena."

"Phenomenon. An extraordinary and unexpected event. *Dunghlison.*

"Phenomenon. That which strikes one as strange, unusual, or *unaccountable*; an extraordinary or very remarkable person, thing, or occurrence. *Webster.*

There is no doubt but what all involuntary functions are "phenomena" to M. D.'s and D. O.'s because they have no knowledge of the origin of power or the starting point of nerves that carry such, therefore, every movement is "by means unknown."

Every function, expressed, ceases to be a "phenomenon" to P. S. C. philosophical students. Mental impulses *must* be carried *direct from brain to tissue*. Let us stamp these with *intelligence* in preference to "by means unknown."

Consider digestion. You are hungry. Certain foods are delicious and, if you are like me, you will make a meal of those. Follow your appetite and you will but comply with what Innate Intelligence sees is needed for the body's good. Food enters the mouth; passes into and down the throat. What moves it? There is an excretion from the mucous lining, an oil that mixes in and around, creating of your food a bolus, and being covered with this substance, allows it to slide into the stomach without resistance. Do *you* produce this oil? Can *you*, then, churn the food in the stomach or does *something else* do it? We know it *is* churned, after which it passes to the three divisions of the small intestine, for further digestion, the excrements being involuntarily carried out. Do *you* do it? No! Behind functions is another intelligence. To call it "Sympathetic" might pass with an M. D. or D. O., under normal conditions, but it does not meet the comprehension nor account for the cause of all accommodating diseased conditions, for does not *Dunghlison* say: "Sympathetic affections of an organ are those *morbific phenomena* that supervene *without* any morbid cause?" How to account for "morbific phenomena" without "morbific cause" is what has been echoing for centuries and still they hit the vibration. (Applause.) Chiropractic has started right. It has built a foundation that is impregnable, has

stood investigation by the best. Why? It *has* for its foundation *the* knowledge of the M. D.'s and D. O.'s "by means unknown."

Water may be swallowed. Do *you* follow it through all its intricate processes, until it leaves your kidneys? No. *You* do not and could not if you wanted to, guide the every action necessary to make of it a food and lubricator. This nourishment after made, must be properly issued. *Can you* do it?

Suppose the radius is fractured. Do *you* concentrate your brain thots upon it, for fourteen days, until it knits? *You* do not, nor could you if you wished, control the impulses necessary to heal it.

Where is the child, woman, student, or philosopher, who can, if I give him all the various tissues necessary, put them together and make a child? Can *he* properly place them, saying nothing of the creating and making the tissues? Where is the man who could build a tree or put together the substances sufficient to resemble the form of a living object? Supposing men could place the various cells, could *he* impart to the voluntary created child that which is crudely known as "the spark of life?" Can *he* give to a corpse, life at command?

Here exists the trunk with its roots, at the bottom, and branches at the top, the ground line being between. The lower extremities are supping inward the requisite liquid nourishment to keep the cells expanding. Suppose I were to support the *theory* that the tree, as it stands, was incomplete—insufficient to live, that it is not able to and cannot maintain an existence. There is something lacking which it must have to sustain life. You say "may be, but what is lacking?" I reply, "The sympathetic nervous system of innervation, so that morbidic causes can exist "by means unknown." (Applause.) Suppose I should say, "It needs the sympathetic system so that reflex actions have a place to play hide-and-seek, peek-a-boo, I see you, or you're *it*, in." I further argue that it requires a chain of ganglions on each side of the spinal column, to make such possible. True, we cannot establish where it comes from or where it ends, but it "does come" and "they must be there" for the "means unknown" to continue to play their games in, and about the time I demand that every living organism must have such, you question my sanity. But, when I lead you to the body and tell you that very condition is *supposed* to exist, then you see the ridiculousness of the situation. We have driven our theorist to a corner by a little common sense (anything can reach such a *scientific* elevation that it loses its practicability), and he offers the consolation that "we don't know different, we don't dare to think outside of the 'Code of Ethics' so we must hold fast to the past, right or wrong, until the other fellows, that we have placed in jails for independent thinking, have forced us to recognize something better." (Applause.)

You ask: "What are *his* reasons for this system?" Looking back even into Chinese history, thousands of dynasties before the birth of Christ, we find it was the custom, when sickness prevailed, to give the physical man *medicine*, the treating of effects. We

have, from those times till today, always had two extremists. The allopathic, homeopathic, eclectic or osteopathic physician *treats man* as a physical character. The mesmerist, hypnotist, metaphysician or christian scientist, etc., claim if anything is wrong it is because the mental sins. If you can clear your mind from such thots you will be all right. Your Innate mind is not capable of running its business, therefore you must dictate to it. We have tonight, an intellectual knowledge of the workings of a physical system in all its functions.

We cannot but reason that these are controlled by a mind greater than voluntary man. To say that they are the result of "sympathy," and you know, according to *Dunghlison*, it is "by means unknown" expresses ignorance.

Suppose a nursery man should approach you and say, "Every tree must have a sympathetic system to live." What would you say and think of his sanity. That is what I think of the M. D. He had to find something which would in a measure, *try* to supply his lack of knowledge of functions of the body and he thinks he has furnished it and perhaps *has* (until a free thinker lights the match), and then where is it?" Vanished, only to exist as an imaginary ghost. It will take time to convince him, that what he thot he saw was practically nothing. The M. D. is trying to account for "phenomena" thru physical "sympathy"; the Chiropractor proves his thots *by showing* (nerve tracing in the living and pathological-osteological specimens after death) the great *intelligence* of an Innate which works thru a brain.

A person says "I feel sick in my stomach and have a sick headache." The M. D. and D. O. would say "The head is in sympathy with your stomach." Let me show you how nicely the Chiropractor analyzes this case. At a certain dorsal vertebra, *upon the left*, goes forth a nerve which reaches the stomach; *upon the right* fibres run to the throat and head. Suppose there is a sub-luxation at their spinal exit. If the intervertebral foramina are occluded on left and right sides, the head and stomach will both be abnormal in mental impulse expression. Not that they are in "sympathy," "by means unknown" because each has its *direct* connection with the base of supply. A new student, in adjusting, in the clinic, might have thrown the sub-luxation a trifle too much to one side or the other; the patient will return saying, "You fixed my headache, but my stomach is on a tear," and by aiming to correct this he may adjust too far to opposite, and again patient will come back explaining "You fixed my stomach, but my head was on rampage." By placing to normal that vertebra, the patient will, the third time, say it was all right. In this one instance, one or the other or both could be bad. With medical men this would be a good illustration of the sympathy between stomach and head, because he does *not* know *the real cause*.

Starting from somewhere and going to nowhere definitely, we are supposed to have a conglomerate chain on each side. We do not know, and cannot find, in ten leading anatomists today, the

starting or stopping point of this chain. The fibres of it, so they say, run into and come from ganglions and where they are supposed to insert is enough to make the M. D.'s continue to guess at "morbidity phenomena, that supervene without any morbid cause." (Applause.) I cannot pursue any study unless its premises are common sense, reasonable, practical and exact. I must be able to start at rock bottom and go to the top. In the Sympathetic Nervous System, I fail to find any antecedent other than "sympathy" is something accomplished "by means unknown." Inasmuch as this philosophy holds to practical facts and my aim is to teach specific, pure and unadulterated Chiropractic, I cannot pursue a "by means unknown" study in like manner. (Applause.)

When we apprehend "sympathy," it does not convey a presentable reason for the intelligence expressed. To uphold that *you* grow because I grow; that *you* eat because I do does not give me the reason *why*. Can you say it is "sympathy" that makes your glands secrete juices because mine do? Can *you* argue that because the liver secretes so does the spleen, that it is "sympathy" that does it? Can you argue that one dozen men, all going into business, to do each other, that they are in "sympathy" with each other? The more you embrace "sympathy" is to cling to a raft of air bubbles.

Shall we continue to concede to a sympathetic nervous system; reflex action and reflecting of one function to another "by means unknown" the control of such a great piece of mechanism as we represent? Will *you* give to some illogical system, whose origin or termination has never been definitely settled, a control of the body? Can *we* say this universe is controlled upon a *sympathetic* basis?

How long would your or my business continue if we allowed our sympathies to run it? *Think* of functions, representing the greatest development of intelligence for you nor I could begin to guide one, let alone hundreds and will you then tell me they are based upon "sympathy," "means unknown"?

If you were to study Chiropractic physiology-function and how performed—philosophically—you would see it is impossible to convey such thru a meaningless set of nerve fibres. As previously stated, the M. D. had to have some sort of a talking basis. He did not know of the relation between mind and body. His nearest comprehension was "nature." By stimulating any one of your abnormal functions, he could and did make you feel better. But it is not *stimulation* Chiropractors work for. By returning the occluded foramina to normal size, cyclic currents are restored, the mental is connected with the physical, and in this way, account intelligently for so-called "phenomena." Instead of existing as something "unaccountable"—supernatural, haphazard, maybe, or "extraordinary," he explains how every function is conceived, conveyed from brain cell, thru nerve fibres to tissue cell. He does not need to say "an impulse comes up to a certain segment, ganglion or center, and reflects down to some distant tissue." Sympathetic

fibres may arise anywhere. They run very indefinitely. It is not a *system* because it has been built "by means unknown." When you have pain in the right toe and left knee, the *where, why and how of such definite* reflections, in the spinal cord, are *indefinitely understood* by the M. D. or D. O. Definite effects produced by indefinite cause. (Laughter.)

They teach that spinal cord segments control all involuntary actions of the legs, the generative organs, the control of the liquids in the bladder, urethra, etc. They will say, according to Sympathetic System, that an impression from the leg goes to the segment and if it is normally supplied with blood it will then innervate the sympathetic fibres, starting from there, and it is as liable to reflect to the liver as into any portion of the leg. Isn't that specific from a scientific aspect? Can you explain, by such random methods, the intelligence behind these actions?

Patient has rheumatism in right knee and left ankle. Nerves branch from the lumbar and pass to affected areas. If pressure be upon a stated proportion of this bundle, just that many mental impulses will express their transmission abnormally at peripheral ending in cellular structure. Some fibres to the knee are under impingement, consequently the patient complains of muscular incoördination—rheumatism—in that region. The Chiropractor will adjust the vertebral sub-luxation, taking not to exceed one-half minute, to release this pressure on both sides and the party realizes the benefit. How often a patient says "My rheumatism is switching about." It is because of the different degrees of pressure at different places. There is no "sympathy" about that. Is there sympathy between the two legs that makes them pain at different places at different times? Chiropractic is direct, simple and does specific work. If we find a specific subluxation, use specific adjustment and have prompt, permanent results, it ceases to be complexed.

Let us consider the individual that says "I have indigestion, bloating of the stomach and that causes my heart to palpitate." The P. S. C. clinic demonstrates many a case of bloated stomach *and heart performing normal*, and vice versa. Does the sympathetic nervous system account for such facts? If so, how? The Chiropractor would say "The mental impulses of such fibrilla are distinct and separate. The nerves emitting at H. P. in the spine, are impinged and the lack of currents cause heart trouble. The stomach has its specific subluxation. Each is separate and does not involve the other. Nerves going to this organ express their functions definitely, in excess or not enough and we have an accumulation of gases. One disease need not exist with the other. Each has a separate cause."

Referring to "Cranial Nerves" I make serious exception to the correctness of what has been previously supposed to be reliable authority. I do object to the nerves that are now known by the various names being so called because they do not convey, coming or going, those impulses which terminate into those functions. We

find this note in *Dunghlison's Dictionary*. "The Encephalic nerves arise from the encephalon or are inserted into it (according as we consider the brain the origin or termination of the nerves) *and make their exit by foramina at the base of the skull*. They are 12 in number. In *Gray* we find "The cranial nerves arise from *some part* of the cerebro-spinal center, *and are transmitted through foramina in the base of the cranium*. The nerves, after emerging from the brain at their apparent origin pass through foramina or tubular prolongations in the dura mater, *leave the skull through foramina in its base, and pass to their final destination*." I have yet to find a single nerve involving any function to which these fibres have received the various names, leave the base of the skull but on the contrary have traced them all to some intervertebral foramina.

For the benefit of scientific differences we shall not quote the origins and point of emergence "at the base of the skull" of the "cranial nerve" and state where each leaves the spinal column as a contradistinction because The P. S. C. has proven them times innumerable after tracing *the* nerves affected in diseases of those functions from which those "cranial nerves" have been erroneously named.

The paths which convey those characteristic mental impulses, to each of these localities (eye, ear, nose, etc.), emanate from the spine *at an entirely different locality* than heretofore known. The method of determining these differences is worthy of more than passing interest. On one—dissection—the body is dead, lifeless, has no feeling, in fact the individual does not know that *the* nerves being dissected are the ones that were abnormal before death. In Chiropractic nerve-tracing, the body has life, it feels, it uses discrimination in saying this nerve has feeling and that one has not, it responds with intelligent answers, that patient has a voicing in the proceedings therefore accurate and precise knowledge can be gained from the individual affected in unity with the work of the Chiropractor.

The first "cranial nerve" has to do with the "olfactory" function. Perhaps innervation or nerve nutrition would be the term used to express that quantity. Much study does not give us a clear insight into just what the physician thinks that this work has accomplished.

For all organs wherein the olfactory function is concerned the Chiropractor will begin to trace at any portion of the nose, lead directly to the cheek, running over that tissue, above or below the ear on that side to the foramina between the 3rd and 4th or between the 4th and 5th cervical on that side. If smell has been affected in any manner a subluxation will be found to exist at one of those two places which is producing pressures upon those nerves interfering with the transmission of impulses to the nose (one side or both), hence disease wherein the olfactory function is abnormal. In such a case the M. D. does not get results and the Chiropractor does. One does not get *the* nerve that *is* involved and the other

does. In such a case the M. D. does not realize what he has missed because he does not see, anatomically, that he has missed anything, yet physiologically he has missed everything—results. The Chiropractor has the anatomical and physiological proofs to prove both his contentions. He adjusts the subluxation, releases pressures upon an entirely different set of nerves and function is restored.

Nerve tracing is a study which proves much that previously existed as wrong in the second "cranial nerve" or the optic nerve. To localize any affections of that sense the Chiropractor would again fall back upon his standby—nerve tracing—and see where the paths *do* go to. The optic nerve has its periphery in the retina, but the nearest points at which we can detect its external presence is at the circumference of the eye-ball; from thence it passes some of its fibres up and over the skull, over the scalp and back to the fourth cervical. Or in some few cases another prominent branch has been found passing from below the eye, passing thru the cheek to the fourth cervical by way of the interior to the ear. This nerve, with at least two branches, has been so often traced that when impinged at fourth cervical interferes with the transmission of function impulses going to the eye or interfering with conductivity of impressions from the eye to the brain by way of the fourth cervical.

In disease of the eye, where sight is involved, the physician cannot do a thing to stop the progress of any given disease of this organ. He can relieve conditions with medicines and oculists can operate and opticians can apply glasses and the conditions gradually get worse regardless of what treatments are applied. The Chiropractor adjusts the fourth cervical subluxation and the patient gets well, sight is restored and other functions therein restored to normal.

With the third "Cranial Nerve" a similar condition is also found. It is supposed to leave the base of the skull, but we have traced its exit many times to an intervertebral foramina lower down. This nerve has at least two branches, but each has one common point of segregation from the spine, altho the path from that varies. With a case of motor paralysis of any one or more or combination of the muscles of the eye-ball, the Chiropractor will trace fibres therefrom over the scalp and following the length of the spine until it reaches S. P., where it obliquely runs inward. In still another case the outer fibres will be found following, over the cheek, posterior to the ear, following inferiorly down the neck, again passing forward over the right or left chest, running under the axilla of either side back to S. P., where a subluxation will be found. Correction of this subluxation with consequent releasing of pressure upon nerves and consequently the restoration of currents mean a return of functions to the muscles of the eye in any one or set thereof.

"The fourth or Trochlear Nerve," "eighth or Auditory." The physician is at a loss to know what to do with diseases of the ear. He has what he supposes is an exact knowledge of the origin and

insertion of this nerve, but its abnormalities are so varied and his science so inaccurate that he is unable to correct a single difficulty other than what he can doctor from the outside. With nerve tracing the Chiropractor can locate such conditions as readily as the physician and he will find them at the same place—the ear—but the cause will be a subluxation at Atlas, where there is pressure upon those nerves emanating from the superior of that vertebra or between that and the Axis. Such conclusions only have been reached thru nerve tracing. Results—which only the Chiropractor gets by adjusting cause—certainly are the proof of the pudding.

“The Trifacial Nerve” always has been an enigma to the physician and it has even been attempted to perform surgical operations by cutting out portions of this nerve to relieve conditions therein. By this means the surgeon has been enabled to somewhat inaccurately locate the peripheries of this nerve. The Chiropractor takes its three branches and traces every fine periphery point by point until he can tell where it starts and where it will enter the spinal column at the fourth cervical. If the left side be affected, then pressure will be only on that side, or vice versa; or, if both sides, then pressures will exist on both sides. Adjustment at that place relieves all pain permanently.

I have but mentioned these first few “Cranial Nerves” to show how inaccurate dissection is when dealing with pathological conditions in the living person.

It is impossible to gauge an abnormal condition by the anatomical features from which the physician tries to gauge all persons. Even in nerve tracing we cannot lay down one set rule for the paths of the same nerve in any two people, for they somewhat vary, altho pursue a main course. The Chiropractor prefers tracing out the paths upon the fellow that feels and knows. The paths of these nerves are different in many people, yet as a whole have directions in common.

We could give an endless number of reasons why “Cranial Nerves” cannot be relied upon when dealing, philosophically, with the live subject, but we feel that the above proves our contention without doubt. The man that gets the results is undoubtedly following the correct system and without correct foundation all else must go wrong. Therefore we logically conclude that the man who is always going wrong, and working without satisfactory results has a wrong system.

Pressure upon brain fibres means lack of ability to convey impulse. The *only place* where pressure (constraining force) can be placed upon nerves where they are *entirely surrounded by an osseous structure* (the only restraining material) is at the spinal column as they pass outward thru intervertebral foramina. That which is *the cause* of all disease exists at these vital places, from atlas to and including the sacrum. We do not need a sympathetic nervous system to explain functions. If the fundamental principles of Chiropractic (pressure upon nerves as they pass thru intervertebral foramina, caused by a vertebral subluxation obstructing

the transmission of currents, *is the cause of all disease*, then Chiropractors have nothing in common to do with the supposed to be sympathetic nervous system. It exists in the ganglions external to the foramina; therefore *not* subject to pressure.

If the "twelve cranial nerves" originate within the brain and go direct to their organ, without passing other than thru the base of the skull, there ought never to be a disease of these functions, because they cannot be subject to pressure unless due to fracture or concussion of the skull. Today there are millions of people with diseases of these functions. Why? Have they *all* had fractures of the skull? Those "twelve cranial nerves" are but distinct branches of the original "31 pairs." They emanate thru the foramen magnum and are subject to the same pressures at the intervertebral foramina. *Chiropractors have traced them*; adjusted the vertebral subluxation and returned the normal function, which is proof of its correctness. For the inaccuracy of our fore-runners we have but to look upon the highways and find millions of deaf and blind, etc. *Who* is correct; the one who treats effects with "sympathy" oil, "by means unknown," or he who has a *direct* definite system and applies it in the same manner and proves specific results?

Do you see where it leads us? If the sympathetic nervous system is correct, then man ought to be healthy, for there could be no derangement. The Chiropractor is the first that has said that the adjustment of vertebræ restores all functions. The M. D. does not do it, neither does the D. O.

I feel some of you thinking the question: "How do we prove the existence of a nerve from the sixth dorsal on right to the head?" Chiropractors are peculiar, if you will, in the manner in which they study the human body. M. D.s. have been dissecting millions of bodies of all sexes, colors and nationalities for hundreds of years, and not one has located *the cause* of a single disease. If you think he has, prove it. When he begins to trace, in the dead body, he follows that sympathetic nerve up to a center and if possible thru to a ganglion which he *supposes* was *the* nerve that caused the trouble before death. Let us illustrate with a case of sciatica. They dissect the nerve that they think has created the mischief, and even if it were possible to thus trace it, they have never found that which interfered with its functions; therefore are still in darkness regarding the cause of sciatica. The Chiropractor traces upon the *living* subject, a person who feels and ought to know if we get it right, and with that unique P. S. C. study, nerve tracing, we follow its exact course. We are taught by anatomists that "the great sciatic nerve passes out of the pelvis thru the great sacrosciatic foramen. It descends between the trochanter major and tuberosity of the ischium, along the back part of the thigh, to about its lower third, where it divides into two large branches. When the division occurs at the plexus the two nerves descend together side by side, or they may be separated at their commencement by the interposition of part of the whole of

the Piriformis muscle." (Gray, pp. 793 and 794, 15th Edition.) How does he know? Because he has cut it out *after death*. Let that *living* case pronounced sciatica go to a Chiropractor. Trace he will, starting perhaps upon the front, inside or outside of the leg. Inch by inch he will carefully and slowly trace that *feeling* nerve. Oftentimes, while pressing on its path, the pain will be felt at peripheral, which has the same feeling and character as sciatic rheumatism. If we vary the slightest from one side to another we miss that tenderness. Thus we proceed, inch by inch, and trace *the exact* nerve *over the hips* to the second or third lumbar. We have now traced out a nerve that no anatomy gives.

We have and do, almost daily, in our clinic, take an example like the given case of stomach trouble and headaches and start at one or the other and trace, from effect to cause and cause to effect, the nerves involved, because it has the same feeling all the way. Upon the right of S. P. we trace a nerve direct to and under the right axilla, around chest to throat or ear. Whenever touched along its path it creates a sharp expression of pain. That is another nerve that no anatomy teaches. It is but a sample of our work upon the *live* body. To prove the correctness of Chiropractic philosophy is but to adjust the subluxation; the head and stomach return to normal. The M. D. cannot do likewise, because he is dealing with "nature" by "means unknown." The Chiropractor *knows* what power he has to deal with, where it comes from, and goes to and by what means; he adjusts the cause of interference. Which is scientific "sympathy" or "knowledge"? The M. Ds. have been trying to get results thru a sympathetic nervous system "by means unknown," and we have adjusted cause that made incoördination between the innate mind and our physical organs.

We had a nice case of enlarged thyroid-goitre recently. Left side nerves examined and found quite tender. Upon inquiry to the patient: "Do you ever have pains in the left breast?" "I frequently do," was the reply. That fibre leads to the breast and I wanted to ultimately reach the throat. We did, down deep, find our fibre, on the right side, and it was exceedingly tender. We traced the fibre thru to the thyroid.

I shall relate an amusing instance. We have another patient with an enlarged thyroid. Although having taken adjustments for several weeks, I did not know it. She had never called my attention to it and I was surprised when she said yesterday: "I can feel my throat is getting smaller." In adjusting on right side both nerves were impinged. One went to the head and the other to the throat. I was relieving the head and in doing so was reducing the enlarged thyroid.

Nerve tracing is a most unique, pleasant study. There are some things I cannot answer. The perplexities of today will be provided for tomorrow.

Summary: Are the above conditions the result of a sympathetic nervous system or an Innate Intelligence expressed thru a definite, exact and specific nervous system? Is function "sympathy" or mental impulse?

The Latest on Sympathy and Reflex

I have contended at length upon the impossibility of teaching Chiropractic philosophy "in accordance with anatomies of the past and present," but I have had called to my attention the twenty-second edition of Kirke's Physiology, being the ninth edition of the revision put out as Halliburton's "Handbook of Physiology." In the preface I find this statement: "New Chapters on the autonomic nervous system, the conservation of energy, temperature, the lipoids, deep sensibility, and the physiology of conscious states, have been introduced, and a considerable number of new illustrations added."

Before reading what they give under this new chapter, let us look up the word autonomic. Webster says, "Autonomic. Having the power of self-government, autonomous. Of plants, physiology, it means due to internal causes or influences. Automatical, meaning the quality or state of being autonomic or autonomus. Specifically, the power of right of self-government, self-government or political independence of a city or state."

Dunglison tells us: "Autonomous, Independent in function; being a law or rule to one's self." "Autonomy. Mechanism of an organized body, or one of its parts, governed by its own laws and independent of any other part."

With that understanding, let us turn to this chapter on the autonomic nervous system. Dr. Halliburton says, on page 207: "The name sympathetic was *originally* bestowed on the system of nerves we are considering, because the ganglia were *believed* to be the centers for reflex actions, or sympathetic actions, *as they were formerly designated*. During their work on autonomic nerves, Langley and Anderson have once more investigated this *ancient* question, but *the only instances* where such a thing *seemed* possible were the following: When all the nervous connections of the inferior mesenteric ganglia are divided except the hypogastric nerves, stimulation of the central and of one hypogastric causes contraction of the bladder, the efferent path to which is the other hypogastric nerve. But the action is *not truly reflex*; it is caused by the stimulation of the central ends of motor-fibres which issue from the spinal cord, and which, after passing through the ganglion, send branches down each hypogastric nerve. The experiment is, in fact, similar to Kuhne's gracilis experiment. They also observed an *apparent* reflex excitation of certain nerves supplying the erector muscles of the penis (pile-motor nerves) through sympathetic ganglia; but this is explicable in the same way. It certainly is the case that under normal circumstances the centers for reflex action are in the central nervous system. But there do appear to be some conditions in which it is possible for ganglia to assume

this function. The recovery of vaso-motor tone, and of tone in certain viscera after destruction of extensive tracts of the spinal cord, or the persistence of peristaltic action in the intestine after cutting through all its nerves, are cases in point. Such actions form, in fact, the chief justification for the adoption of the new term, autonomic."

"Each viscus appears to be correlated with a definite patch or band of skin; this may even be tender on pressure. Ross's suggestion that the pain in such case is referred by sensory cutaneous fibres ending in the same segments of the cord as do the afferent fibres from the viscera in question, has been placed beyond doubt by the subsequent work of MacKenzie and of Head."

I want to call your particular attention to his statement wherein he says the name "sympathetic" was "formerly" bestowed on the system of nerves we are considering because the ganglia were "believed" to be the centers for "reflex" actions, or "sympathetic" actions, as they were "formerly" designated, showing that there is a remodeling of their thought. Notice again where he says that during the work on the autonomic nerves Langley and Anderson have once more investigated this ancient question, showing that this "ancient question" is not beyond investigation in their ranks as yet. It is not closed, in their opinions, as is shown by their statement of the only place where such a thing as reflex action seemed possible giving the two citations, and then follows and connects it with the central nervous system in the spinal cord, and runs them out through ganglia, and after passing through the ganglion sends branches down the hypogastric nerve. This is a strong point tending our way, tending for our position on reflex and sympathy—coming out in the latest book on Physiology. The balance of this edition is like your books. This is a chapter inserted into the book which did not exist before. Throughout the balance you find sympathy and reflex action spoken of. Consequently, we must give them credit for coming our way—not us going theirs. If they can afford to consider this question not closed, then certainly we also have the right to think upon it as they are doing. If physiologists are turning our way, where will the people be in time who, having been offered our way, turn back to older physiologies?

The Nervous System

Quoting from page 290 of Morat's "Physiology of the Nervous system, under the head of "Conscious and Unconscious: Their Separation," says:

"Conversely, the system which physiology calls 'vegetation life' is not merely that which anatomy describes as 'sympathetical,' *a term which, further, has no longer any meaning*, the Sympathies (a kind of functional consensus which the old physiology held to exist between remote organs) *being assumed as much by one of the two systems as by the other, and reciprocally*. In spite of this, the anatomical expressions currently used *will still be employed, even by those who appreciate their inaccuracy or their insufficiency*. We must, therefore, make use of them; and that is the reason why it is necessary accurately to define the true meaning which attaches to them.

"The limits of the Great Sympathetic.—In accepting the great sympathetic as the extra-spinal portion of the nervous system of vegetative life, it is still necessary to define the limits which appertain to it, and on this point the confusion has been great."

"Its Bulbar Origins," in reference to the cranial nerves, he says:

"It is for this reason that there is a series of nerves called cranial, which are not included in the general formulæ comprising the grouping of nerves of different functions, formulæ based on experiments carried out in the spinal nerves. *The nature of this grouping is in no sense absolute*; the separation into metameres does not express an absolute physiological necessity, but a fact of development, of evolution, the reason of which lies in the past."

Going further, and speaking on the ganglia in the gray matter, he says:

"It would be of the highest importance to be acquainted with the laws, whether general or special to each group, according to which this association is effected. *There is still very little known about it*; nevertheless, experiment has furnished some facts which are of an interesting nature."

Dr. Morat stands the greatest neurologist in the world to-day, being Professor of Neurology at Lyons University, in France. He asks the question:

"Are all these ganglia places of junction between successive neurons? Yes, in the sense that all contain cells of origin for a certain number of neurons . . . This point cannot be determined precisely; all that can be said is that from the cord to the viscera there is at least one interruption, therefore at least two neurons which are successive or superposed. . . . Very far from the impulse passing simply from one fibre to the following one, the field of distribution of every neuron from its origin to its termination must assuredly be very complicated as regards its rela-

tions with preceding or successive neurons, or even with collaterals.

"The gray matter of the ganglia; its functions..... Physiologically, it is demonstrated that they are the localities in which the impulse is transformed. They may stop it, preserve it, redistribute it, *in a sort of way*, to organs situated in their field of innervation; each of them resembles a segment of the spinal cord. These essential points are acquired in a general manner; *much remains to be done as regards the study of the detail of these functions* and the localized investigation of each separate ganglion.

"..... How can these ganglia contain a provision so inexhaustible that it can last for fifteen days, as has been observed? That these ganglia have preserved a portion of the impulses which have come from the cord by the cardiac nerves cannot be doubted; but that they have been reduced to this provision made in advance seems difficult to maintain. Between these ganglia and the heart muscles, a reflex cycle is *probably established whose centripetal paths* (from the muscles to ganglion) *are known to us, as they have remained indistinguishable up to the present time* amidst the other nerves; but it appears *probable* that they exist and that the beating of the heart maintains the stimulation of its motor nuclei by this mechanism, at once reflex and automatic.

"Tangelmann and Fame incline, it is true, to attribute to the cardiac muscle, to the exclusion of its nervous system, the automatism of the cardiac movements. *It must be admitted with them that the question is still enshrouded in obscurity*, but it cannot be allowed that they have demonstrated that this automatism is purely muscular in the adult animal.

".... It is precisely here that new researches have been undertaken, and also at the same time *a new and unexpected direction* given to the question of the motor mechanism of the heart.

"First origin of the stimulus.—Thus, for the myogenists, the rhythm, the peristaltism, in a word, the particular form of the motor reaction of the heart, is a purely muscular phenomenon. But whence come the stimuli? *This is a doubtful point for them*; but, they say, with sufficient probability it may be allowed; 'that the stimuli *do not* take their origin in the ganglionic nerve elements, but rather in muscular elements which are histologically but little differentiated;.....they are very probably the expression of the automatic disintegration of the living substance of a more or less extensive group of muscular cells, situated at the venous extremity of the cardiac tube.' This time the nervous system is dispossessed of the most fundamental and most essential property of these which up to the present time have been recognized in it, that of being an organ of stimulation for the other tissues. The cardiac muscle would not, therefore, owe its stimulus either to the blood or to the nerves; it would supply it to itself; by its own contractions it would be stimulated. Contraction and stimulation would thus be mutually related the one to the other, being, as they would be, bound together in an intramuscular-intracellular cycle. Such an

exclusive opinion as this is not, however, that of all the partisans of the myogenous theory. It cannot be allowed that the cardiac muscle receives the stimulus otherwise than by its nervous system. When the ganglia are intact, it is they which supply the impulse; when they are removed and when the apex of the organ is electrically stimulated, it is its nerves rather than its muscles which receive this artificial stimulation, and this is the same manner as an ordinary muscle."

Speaking on the conclusion of this subject, he says:

"In brief, if certain facts of great importance are put on one side, such as the loss of motor spontaneity in the portions of the heart separated from the ganglionic apparatus, it is seen that, whatever interest attached to the numerous discoveries concerning details which have been made in seeking to investigate the mechanics of the cardiac motoricity, *none has a really decisive value as regards the solution of this problem. The function of the muscle and of the nerves continues in some degree indissociable by our present means of analysis.* . . .

"Action of oxygen on the movements of the heart.—If the movements of the heart depend on its ganglia, these latter in their turn depend on a number of conditions which influence their excitability. It is necessary to consider especially the gaseous condition of the blood and its temperature. These conditions act on the muscle and on its nerves, but primarily and energetically on these latter."

Speaking on the specific stimulation of the sensory nerves of the deeply situated organs, he says:

"*There is no doubt that the centripetal of the great sympathetic receive their excitation from special apparatus analogous to those of the superior senses and distributed either to the large cavities or in the depth of the organs. Up till the present time we are poor in anatomical data concerning this point.*

"Experimental data.—Pepielski, Wertheimer and Lepage have formed experiments concerning the pancreatic secretion which demonstrate ab origine ad terminum a functional cycle of unconscious vegetative life, as also the more or less marked developments which this cycle may undergo in the interior of the nervous system. *It starts in a specific stimulus and it terminates in a specific act, passing thru nervous paths which experiment localizes at its will in systems whose dimensions and complexity differ.* . . . Not only the cord but the bulb and the brain may take part in the regulation of acts of this order, although they are involuntary and unconscious.

"The system which reflects and coördinates these impulses is certainly complex, *even when it is experimentally reduced to its smallest dimensions.* . . .

"The study of the functions of vegetative life demonstrates or leads to the suspicion that there are many examples of the same kind, in which it is necessary to allow that chemical or mechanical stimuli, through the intermediation of given nervous cycles, regulate nutrition, or the movement of the parts."

Speaking under. "Special Functions of the Great Sympathetic," he says:

"It is in operating on the cervical portion of the great sympathetic, which is more accessible, that the principal discoveries concerning its functions have been made. . . . The earliest is that of Petit (of Namur), known as Pourfour Dupotit, who observed, as a consequence of section of the cervical sympathetic, those phenomena which are known as ceulopupillary (sinking of the globe of the eye, contraction of the pupil); these phenomena are explicable, the first by the loss of the tone of the exhibitory elements of the sphincter muscle of the iris, the second by the loss of tone of the muscular elements of the capsule of Tenon."

You adjust the fourth cervical for blindness; that is where he has experimented—in the neck.

"But, by this observation, he established a fact new and important for that epoch—namely, that, *contrary to the other motor nerves which appear to descend from the brain, this latter ascends in starting from the spinal cord towards the head.*"

You wonder how it is you adjust the fourth cervical for blindness; and then the bookworm—the student of Gray—says there is no such thing, because "Gray doesn't say so; you can't find it in Gray; you can't show me anything in Gray where he says anything about nerves running up to the eye, for he tells us the optic nerve comes from the optic thalamus and goes to the eyeball, and I believe Gray, because he knows." But Dr. Morat says, "this latter ascends in starting from the spinal cord towards the head." Who is right, according to our clinical results? Morat continues:

"This was to distinguish, by one of its most striking characters, the systematization of the great sympathetic as regards that of the other nerves. . . ."

"Cl. Bernard (1851) performed on this same nerve an experiment which is still regarded as classical. *Having cut the sympathetic in the neck of a rabbit, he observed that the temperature of the whole of the corresponding side of the head, especially of the ear, was remarkably raised. On making the counter experiment by stimulating the superior end, he observed that the temperature fell below the original temperature, as Brown-Sequard had observed almost contemporaneously.*

"*The announcement of this fact caused much astonishment.*" —I should think it would, because he was putting the kibosh on the haswazzers.

"*The announcement of this fact caused much astonishment.*" Of relationship between the temperature and nerve action, between a fact markedly physical on the one hand and a fact just as markedly vital on the other, none was clearly seen.

. . . "Cl. Bernard, in investigating the effects of the section of the cervical cord in the horse, had observed that the corresponding side of the face and neck was covered with sweat. But this phenomena was *then* interpreted as being dependent on the vascular paralysis which follows this section. *It is probable that it*

means something further—namely, the cessation of an inhibitory influence conveyed by the great sympathetic to the sweat glands.

"Inhibito-secretory function.—Arloing (1890-91), having cut this nerve in the neck in the ass, observed after some days that the sebaceous glands of the external ear were crammed with their secretion, and he regarded this result as being one of the first observations concerning the inhibitory action of the sympathetic on the glands. This author points out facts of the same nature relating to the lachrymal gland and to the Meibomian glands.

"Function of accommodation for distant vision.—Morat and Doyon (1891) observed that stimulation of the same nerve produced not only dilatation of the pupil but a contemporaneous flattening of the crystalline lens, which they recognized by the enlargement of the crystalline image (second image of Purkinje) at the instant of stimulation. From this they concluded that the sympathetic governs accommodation for distant vision."

And this down in the neck!

Dr. Morat further says on this same subject:

"Parallel Systems for Different Functions.—The great sympathetic assumes or direct several functions: movement of the blood in the vessels, formation and expulsion of secretions, progression of the aliments in the digestive tube, etc. From this point of view, it may be resolved into as many parallel systems as there are distinct functions or species of cells for the performance of these functions. These systems, which we call parallel, are so in the strict sense of the word, in the sense, namely, that from their origin (spinal) to their termination, they are strictly superposable. Example: the ocular apparatus contains vessels, glands and deep muscles regulating the access of light, which are all unconscious, involuntary organs. . . .

"In order to recognize spinal metamerism under its primitive form, *it is necessary, then, IN AN IMAGINARY MANNER, to add to the spinal cord two formations situated outside the vertebral canal and which, in fact, appertain to it—namely, the spinal ganglia and the sympathetic ganglia.*"

On page 327, Morat says:

"Starting from the spinal cord, the spinoganglionic neuron first follows the corresponding root, reaches the chain at the level of a ganglion (or in its neighborhood), ascends or descends through the length of the latter. . . . The preceding description answers to a general rule, or at least to a more or less marked tendency; but doubtless there are certain exceptions to this rule. It is by studying the phenomena which depend on the sympathetic, and which are visible at the surface of the skin (condition of the circulation, sudoriparous secretion, and especially movement of the hair), that it has been possible to determine with precision the areas appertaining to each of the ganglia of the sympathetic chain or, which amounts to the same thing, to its branch of distribution. He says that the only way we can ascertain this fact is by watching the phenomena on the surface of the body, and then distinguish the

fact that it connects with a certain ganglion. For instance, if he hits a man on the back, and the abdominal muscles contract, then there is a ganglion here which contracts the muscles; hit a man in the solar plexus, and he falls. You say that connects with the brain, because he is unconscious. Morat says that is the way we reach conclusions. And if he can use that conclusive process, I do not know why we are not privileged to do as well."

He says, in his original chapter, under the head of "Innervation," page 1:

"In the living being, all the phenomena appertaining to crude matter are observable, but the converse does not hold good. It is obvious that a being endowed with life possesses characteristics and presents manifestations for which in dead matter we can find no parallel; and the most marked feature distinguishing the one from the other is that of sensibility. Here is brought before our notice a fact of a purely internal nature, eluding observation as it is generally understood in science, but which common sense constrains us to attribute to beings resembling ourselves, while at the same time denying it to all objects in which this resemblance cannot be discerned."

Notice, you desire-to-be-scientists, and confine yourselves to science. We who are alive have life in us, but it cannot be proven, and those who have a life and want to prove it scientifically may as well walk the plank, because it cannot be done. He says it constantly eludes observation, but "which common sense constrains us to attribute to beings resembling ourselves, while at the same time denying it to all objects in which this resemblance cannot be discerned."

" . . . This reciprocal link not only controls the relations of the living being with all surrounding objects; it is also, and simultaneously, the distinctive feature of its organization. In its development, as much ontogenetical as phylogenetical, it is the living being which is at once both artificer and final cause. From this double link—this reciprocal link—so frail in itself and yet so intimate, proceeds the unity of being endowed with life, and in his organism, where each part depends on the whole and whole on each part, a synthesis is effected which confers upon it its individuality. This prodigy of complexity is also a prodigy of unity."

This reciprocal link, what do you call it here in your study? Innate, mental impulse, cycles.

A science having for its aim the study of a being so constituted should never lose sight of this double character.

" . . . How can this proceed from that? How can that which is invisible in the element become apparent in the whole? *To those questions we can find no answer; but, in science, as elsewhere, it is always imprudent to run foul of the information given by common sense, and a problem is not solved when one of its terms has been omitted. . . . In the past, and even at the present time, physiology has overlooked, and still overlooks, the fact of the being which it studies possessing sensibility; and has in every case re-*

fused to acknowledge this sensibility as a casual or conditioning influence in the determinism of vital phenomena."

You condemn physiology for being 99 per cent anatomy and 1 per cent histology. There is no physiology in your physiology. *"It has overlooked, and it still overlooks, and has in every case refused to acknowledge this sensibility!"* What does Kirke say in his preface? He denies the knowledge of "vital force," and when he refers to it, it is "not because he believes in it, but merely because it is a convenient phrase."

Morat goes on to say:

"It has carefully arranged the balance sheet of the forces of the organism, while taking no interest in the function which regulates their employment. As physical science finds no place for sensibility, neither has physiology accorded it one. The time seems to have arrived for a reaction against these exaggerations. In the living being, just as movement depends on sensation, so does sensation depend on movement."

"In both cases the nature of the link is unknown to us; but none the less does this link exist, and is in biology the foundation of all that distinguishes it from pure physics." So you perhaps see the essentiality of cycles, mental impulse current, and a few of the kindred subjects. We have the link which he has not; therefore, we study physiology, and he does not. Any school which clings close to Kirke—be it medical, osteopathic, or Chiropractic—teaching it for what it says, is nor cannot teach physiology. They must introduce this reciprocal link into Kirke in order to make it biology, to make it physiology, *and the Chiropractor has this link in the study of cycles.*

“Reflex Action” (?)

Originality, plus brevity, always succeeds, if it has quality and is a needed article. If you had seen the manuscripts of the previous lecture, after twice revised, you would have said, “How little he must have said while delivering that lecture.” I will take credit, however, that what is given is original, and connected with brevity, will be of interest.

In “reflex action,” we must revert to when we studied how little is known regarding the “sympathetic nervous system.” Obliterating the “sympathetic nervous system” knocks the props of “reflex action,” which is supposed to be the movement that takes place within this starting from somewhere—and going to nowhere system. If one is removed, where is the other?

The following definition of “Reflex Action” is from *Dunglison’s Dictionary*, 22nd edition, page 953: “Term applied to an action *which consists in the reflection by an efferent nerve of an impression conveyed to a nervous center by an afferent nerve. A reflex action is generally regarded to be one executed without consciousness.*”

To make the above clearer I refer to this author’s definition of “Reflection,” page 953: “Bending or turning back; duplicature. Bending or turning backward of a ray of light.” He does not speak of any transformation that must take place before it is “duplicated.” Bear these in mind for future reference.

Osteopathy and medicine are on a par with this system of “sympathy” and “reflexes.” The following is quoted from *Osteopathic Health*, Volume II, No. 2, Page 19: “Stretched along both sides of the spine, within the cavity of the chest and abdomen, running the entire length of this “backbone,” are the gangliated cords of the sympathetic nervous system. This wonderful *automatic* (an automaton ‘without consciousness’) system, with *its central power house at the solar plexus, or abdominal brain, furnishes energy for all the involuntary activity of the body—the machinery that runs as well while we sleep as during wakeful activity. All the bodily organs, but not the voluntary muscular system, are sustained, operated, controlled, regulated by this sympathetic system. Its importance to life is obvious.*”

The solar plexus is an “abdominal brain” and from this go forth “reflected actions” which control the body. Osteopathy says this system is an “automatic” one. If you could invent a man of machinery, who would work, walk and perform actions “without consciousness,” then we have an ideal “automatic” or “reflex” individual. Any mechanical device which has its spring or power giving mechanism which must be wound by man, daily, weekly or yearly, within itself, is an automaton. A watch is a good illus-

tration. It has behind it no intelligence; and upon that argument is founded the basis upon which M. D.'s and D. O.'s account for your existence.

Discrimination means the additional factor of intellectuality, therefore it is not a reflection.

"Automatic." I do not like this. For instance, I am angry. Analyze the thought and expression—is the thought and action following it automatic—just happened? I bring out the thought that I was angry, but I had nothing to be angry about; I hadn't been placed on the royal road to wealth, and a very few have for which existed before.

Whenever you find discrimination, just so surely do you get away from reflex action.

I take food into my mouth—it is digested in the stomach. Good. It is acted upon favorably. I take some other kind of food into my mouth, it enters the stomach but it doesn't stay long—it is out again. The point I raise, is what is IT that says one food is good and another is bad? Something discriminates between these things! Everything in life is in a constant state of discrimination. When you form your cycle then reflex action forms no place in that logic. The physician who originated the thought of reflex action was not an analyst.

Why do we "like" things? Is it reflex or intellectual? I maintain that when there is discrimination there is intellectuality.

Is there not a difference between automatic and reflex action? Do you not get reflex action by bringing two "automatic" things together?

When you are hungry and sense the necessity for food, your mouth waters. Say I smell a beefsteak frying; the nose is receptive and wants more of the same kind of smells and they send impressions up to the brain. If it was pepper, the nostrils would try to repel the odor.

The cycles are all working towards the appropriation of something for the good of the body. The cycles of smell and taste are complete within themselves and yet they work together, resulting in a good ideation. There is no question but what the tissue cells in the mouth are working along normally according to circumstances. I do not know whether all cells are working up to 100 per cent or not, but when food is taken in they increase their action and it may be that behind the interpretations of food they are working for and with something else.

For instance, am I using more power when I am running than when I am standing still? My muscles keep up to a certain tonicity while I am standing still, and we would hardly say there was less than 100 per cent of impulses or power—when I run there is still 100 per cent of power and yet I am performing more action.

Doesn't something change the vibration of impulses, else we would not get impressions other than we have all the time? One hundred per cent in speaking of quantity is confining it according to the circumstance with which it is dealing. There is 100 per cent

in the mouth in the active state. Now it is not active and still there is 100 per cent, making a difference between necessary activity and the passive condition. I am not unhealthy when I am standing still, nor when I am running—I am healthy in both instances, yet I am using 100 per cent of current according to the circumstance which I am meeting.

If normal, I can appreciate 100 per cent of taste or smell, whereas if capable of only 50 per cent I would not appreciate either.

Here is a vibration from tissue cell to brain cell—the quantity of current that passes is 100 per cent per minute in the non-active state. In the active state the same amount of current is going through, only a great deal faster—the question of time enters into this, if you are considering 100 per cent of a given quantity.

A person gets up in the morning feeling well, does his normal work, and then is called upon to do extra work which he does, and remains normal. If abnormal, considering the amount of movement, per a given time, you will find that the extra work put upon him makes him feel bad because he has only been able to have a certain amount of current in a certain period of time, getting no more current in the same space of time.

A question of intellectual adaptation enters into this. The question arises as to whether we have 100 per cent of current when muscles are inactive, and if so, is there only the same per cent of current when they are in their most active state? Let us make comparisons with a 2-candle power globe and a 32-candle power globe, and we will suppose that one minute is our standard of time and 100 per cent is our standard of quantity of current. We will find that the 2-candle power globe will use up 100 per cent of current in 32 minutes—change to the 32-candle power globe and it will use up 100 per cent of current, just sixteen times faster than the first. This can be applied to the body. Have a brain cell fibre and a muscle cell, completing a physical cycle. The brain cell manufactures 100 per cent of current per one minute; the nerve fibre transmits 100 per cent of current per one minute to tissue cell which acts out that 100 per cent of current per one minute.

I want to emphasize that the quantities of current are different under the same length of time only as regards circumstances.

As to the abnormal, to a muscle in repose 100 per cent of current is being expressed at a brain cell, 50 per cent is being transmitted beyond the point of pressure, and only 50 per cent is being expressed at tissue cell—pressure upon the nerve cuts off 50 per cent of current transmission—you call upon that muscle to do some quick work and it will be unable because it is supposed to receive a greater quantity of current than when in repose, but owing to the pressure upon it, it does not get through.

When the muscle is in repose it is equivalent to the 2-candle power globe and when in the active state, to the 32-candle power globe. Call upon the same muscle fibre in the active state to per-

form the duties of the 32-candle power globe; it is equivalent to the 2, owing to the 50 per cent pressure shutting off the current.

In the illustrations just given you must not overlook the prime moving factor, or the idea of pressure beyond the current. The current in this instance is the intellectual adaptation taking place in the mind. It is possible in some conditions that are abnormal that you can inject some preparation or give to the body something which increases the necessity for action, and in this way calls for a greater force of intellectual adaptation, and in that way make it appear that you have stimulated conditions, but eventually you get back to the standard as before. This may be summed up in *more current for the same space of time*—you must have a basis.

Matter may get to such a fine quality standpoint that it becomes immaterial—blending from solids into vapors. Therein exists the physical basis for spiritualism. While spirit is immaterial, yet it is possible for it to be condensed or verging on the material, under certain conditions, and exist on a plane midway between the immaterial and the material, and then go off into the immaterial again—they can take semblance or not.

While it is possible for a question to arise as to material things always remaining material, and immaterial always existing as such, yet I believe it can be maintained from logical standpoints that material things are capable of taking higher grades or qualitative steps and thus get into the immaterial and that the material returns to earth—in other words, that nothing is lost. It may exist for a time in one form and gradually take on another and may some day come back again. Electricity is one form of a material or immaterial thing, just as you please to call it, and I believe that mental impulses are the same material or immaterial consistency, just as you wish to term them, but of a finer quality than that of electricity.

The fact that this high power comes through the mind of man is what puts it through a refining process, because the brain of man is a much finer quality of material than a dynamo through which the electricity passes.

When you are hungry and sense the necessity for food, your mouth waters; that is "automatic," "without consciousness." In giving you new thoughts tonight and upon your arrival home you will debate the question with your brother, sister or fellow student. The actions and power expressed but represent "reflex actions," "reflexed" external conditions. You are "reflecting," unconsciously, what I have stated. No matter if you disagree, the power necessary to perform the function is but a "reflection." *Why* have you an appetite and eat certain foods which taste good to appease it? "Automatic," "without consciousness." The femur is fractured; it is built to normal, healed by the deposition of osseous matter. *Why*? "Automatic," "without consciousness." Your food digested, converted to chemicals, transported to all tissues of the body and utilized to your physical needs. *Why*. "Automatic,"

"without consciousness." Your bowels act, the kidneys empty themselves into the bladder, they are void, and all because it is "automatic" and "without consciousness." *How* do you do anything? Does "automatic" or its synonym, "reflex action," explain the *how* and *why* behind each and every action? One has not improved the other, nor the second its mate. Do you grasp, now, what "reflex action" is and what it is supposed to do? It is but an "automatic" action taking place in the "sympathetic nervous system," constant "reflections" of external conditions through the reflection medium (as a mirror to the sun)—spinal segment, ganglion or nerve centers.

I knew a peculiar sort of a crank. As odd as he was and is considered to be, he has succeeded in keeping people guessing as to what he would do next. His actions and thoughts are sharp, alert and ahead of the times. He holds today an enviable honored position because others are being taught to reach his intellectual level. His every thought was *Why?* Originality combined with strict discipline and stick-to-itiveness, joined with principle and honor, has made him many enemies, the majority of which are, knowing him better, turning from enmity to respect. Many students have been placed on the royal road to wealth and a very few have, for mercenary, avaricious, greedy hoggish reasons thought, child-like, to undermine his honor, and they are still the cowards that are failing at every turn of the road. One by one the gradually increasing, compelling pressure has whipped them to the line of truth and justice.

He would study two bones and by comparison would find one normal and in its opposite very much abnormal. *Why?* would be the first question. "Here was evidently a fracture united by a pier of exostosis," "automatic," "by means unknown," did not answer the *why* and *how*. When, by accident, a calvarium was held between himself and the light, he observed two beautiful forest fires, as fine as any artist could paint on canvas. To say that such was "automatic" did not reach his ideal nor answer the question.

When, in our earliest pickings of osteological specimens, a pig's femur overlapped three inches as the result of an unset overriding fracture and upon which was much porous surrounding spiculæ and this was gradually being torn down in proportion as the fractured surfaces became better nit. To maintain that such was done by "reflex action" or "duplicature" of the original conditions, which was a fracture reflected, "ending or turned back," did and would not answer.

The destination was *to place behind these actions an intelligence* to disprove the "without consciousness" fallacy. To go to your daily business, return and rehearse that innervating function, performed thereby, are "automatic," does not state the intelligence of your objects for so doing. Can you conceive that digestion is "automatic," "without consciousness?" Imagination cannot carry me far enough to believe that the great intelligences are manifest under abnormal, diseased conditions, as we daily see in specimens

from the largest and finest collection in the world, and the many accommodating changes studied, *where and how*, is answered by Innate, who shows the greatest knowledge in circumventing obstacles; a pattern from which a man must first trace back all his mechanical ideas; that all of these are "automatic?"

Reflex Action—A thing which starts out and comes back without any modification whatsoever—a thing which is sent in without anything having been accomplished. Then what's the use of it?

Reflex Action.

0—Nervous center.

2 3—Efferent nerve.

2—Afferent nerve.

0—Tissue cell.

If the cycles be correct, and I think you concede there is good sense in them, then we must recognize that everything is guided by an intelligence. A Chiropractor would tell you that vibration is carried by a nerve and we have an afferent nerve only for carrying such to the mind which would decide whether it was good or bad, and the impulse which goes back is adaptative in character. Vibration precedes everything. Here is a fractured bone. Keep this definition in mind. "They take it for granted that an intellectual interpretation takes place?"

Dunglison says: "Every function not done voluntarily is supposed to be guided without sense or knowledge." I want to account for man as an intellectual proposition. You speak of a *sub-conscious* mind—it is a *superconscious* mind—to me it is the most important mind.

The cycles show intellectual function. The foundation of their existence taking place within you is supposed to be guided by reflex action, according to medical and osteopathic authorities. It is their foundation as much as the cycles are ours. Remember, Dr. Flint said his work was anything but automatic because it brought out personality and individuality.

Reflex act teaches that with a certain stimulus, at a specific spot in a direct manner, and every time that the same is employed the results must always be directly the same. Equal "stimulus" must demonstrate a like result, inasmuch as the entire circuit is purely a physical process and acted upon by nothing but what is material. The reflex act must, as a consequence, return with the same as it sent. This is not a fact with the human body, as the most careless examination would portray. You have but to notice any act that was not previously considered, something that you do on the spur of the moment, to contradict the reflex act, which is not definite nor direct in any manner that I have been enabled to study.

According to adaptation there are no two responses alike in form, character or action, direction of movement or with the same degree of force; therefore there is an adaptation, and this could not occur without more than a corporeal material transformation to receive, interpret and respond. It involves the brain of man, his intelligence and mind as intermediates to accomplish that. Therefore reflex act cannot be computed upon or recognized as the basis

of all that adapts itself to the innumerable circumstances that we are called upon to deal with every day. In every responsive action there is adaptation, whether it be Educated or Innate.

Medicine and Osteopathy are based upon this "reflex action" by and thru the "sympathetic nervous system." Reference to a typical example will be found on p. 245, 17th Edt., *Kirks' Physiology*.

"The heart of a healthy adult man contracts about 72 times a minute; but *many circumstances cause* this rate * * * to vary even in health. The chief (circumstances) are age, temperament, food and drink, exercise, time of day, posture, atmospheric pressure, temperature." From the above we conclude (according to medicine—and Osteopathy has the same anatomy, physiology—which they have fallen heir to) that external "circumstances" can and do "cause" changes to take place by "reflex action." The following questions are a consequence of disbelief:

1. Can "circumstance" *cause* adaptation?
2. Can Adaptation *be the result* of an intelligence plus the circumstance?
3. Can circumstance *be the result* of adaptation?

The first is answered in the negative; the latter two in the affirmative. The M. D. or D. O. would consider it as a long settled fact that the above enumerated "circumstances *cause*" the adaptation of the bodily functions. *In what way and thru what physical, definite channels* are age, temperament, sex, food and drink, etc., anything to do? *Where and what* is that substance, thing, goal or place where such "circumstances" are *discriminated* between? A spinal segment, nerve center, or ganglion has not thinking abilities, and surely our brain is not in our belly; therefore age, sex, food or drink are all as one. *There* is nothing in that which knows or realizes any difference between them. *Where* is the thinking propensity or direct connection? Innate power is no respecter of persons, plants or animals, and will always adapt herself to the conditions presented for her to act thru. Adaptations are the *results* of an intelligent, thinking individual who has ability to thoroly control bodily functions; who can harmoniously adapt one or more or any combination of functions to any kind of "circumstances," internal or external (where it comes in contact with the object which she is controlling), at one time. Place your finger upon a hot stove. Instantly it is removed. Did your spinal segment think and know the difference between a hot or cold stove, or did it even know the difference between that and a cold potato? It is plainly evident *you* did not do it, for the hand was far from being in contact when you were aware of the burned portions' existence. Did *you* or your ganglion "without consciousness" place this new tissue? *Where did* these new cells expand and *how* manufactured? A power is necessary, but is this but "reflection?" Can nothing be the *genuine* force? It is always the same answer, "reflex actions." (Laughter.)

Regarding the place where circumstances are discriminated between:

When you bring in a question of discrimination you are bringing in an intelligence. If the solar plexus was furnishing the power for a man's body it would not affect the working of the body to cut off his head; or take a man with his head on, whose Innate is away, you can put him in an ice-box—he doesn't care—there is no intelligence there, even though both the solar plexus and brain are present.

The law of adaptation has never been considered much anywhere; it is a union of intellectual forces adapting itself to a condition in material things; yet where is the philosophy, science or art, today?

The "circumstance" *alone* cannot "cause" adaptation. Something greater than an intermediate effect must exist, and that something is our Innate performing thru Innate brain, which, situated within the skull, receives all impressions from the external, interprets them as normal or abnormal and adapts herself in expressions accordingly. This intelligence is not known or recognized by the M. D. nor D. O. other than as "Nature," and they might as well have nothing as to know what little they do about that. No wonder their failures, thots and actions are constantly being "reflected" ("bending or turning backward").

If the first "circumstance" be a fracture, the impressions must travel inward, be interpreted as such, and impulses of the right quality, quantity and character are directed to the distressed point to proceed with reparation. They, thru the deposition of new cells, heal this break to as normal as is possible. By so doing Innate makes of the abnormal circumstance, to all practical purposes, a normal one. Thus abnormal "circumstance" may be the result of Innate adapting her forces to the abnormal external or peripheral conditions. It is but the common law, that is daily observable in and all around us, the law of adaptation. Knowing what to look for and how to find them will show many occurrences.

To replace "automatic," "without consciousness" or "circumstances" with something that is intelligent, we must show that which is more rational. Behind every *responsive* impulse is an intelligence which gives character. Common sense reasoning and playing the Sherlock Holmes on Innate has given us a direct system, in which every fibre leads from tissue to brain cell, or vice versa, which receives its impressions or transmits impulses and that is interpreted or expressed in tissue cells; a multitude of these, acting in a harmonious whole, is but the normal living body.

A ball is struck against the wall and it glances somewhere or anywhere, just as liable one place as another into the audience, altho it has been proven that the law of angles proves where it will go.

Do such actions give an idea of directness? Yes, to an intelligence or a man who understands this law.

The law of angles is a specific and definite law. I maintain that there is a specific lobe in the brain with specific cells where interpretation takes place and the responsive action is intellectual, therefore there is a direct responsive adaptation, and the cell that needs it is the one that gets the responsive action. I put one foot on a hot stove and that's the foot taken off—that's a direct law, not reflex action.

Man has along his spine a whole series or chain of "ganglia" which are the crossing and recrossing of the nerve fibres, forming about 129 brain centers. (?) The osteopath recognizes no brain for involuntary functions other than the "abdominal brain." I would have to think to draw my foot away.

Impression, traveling inward, *happens* to "reflect" to a segment, or nerve center, and, like a spark of the electric wire, jumps to any surrounding fibre that is handy, expressing itself at its periphery, altho that may be far from the point of necessity. Can you imagine a human unit, *complete* in mechanical work and functions, that could exist upon such a hypothesis? It does not meet the comprehension of the grandness involved. You will admit, this type of principles, if applied to machinery, would not deliver the work in any shape or form that you or I care to buy. This body is the grandest business in existence. It has lived thru eternities and man with his comparative feeble intellect has never added or improved upon her work. How much greater must be the application of such principles in preference to commercial work? If success is system detailed, then how majestic must be the "system" upon which the "involuntary" body is managed? Could such accidental means run you or me?

If your body were a rooming house, would *you* rent the running of your soul, the very fundamental of your building's existence, to such a system.

At the central end of every *brain* fibre is its Innate brain cell and there receives external impressions, put them thru an intellectual cross-examination—interpretation—so that the extension (nerve) can transmit to the periphery an *intelligent* impulse denoting character, that directs where it should go and what it must do; then we have an *intelligent response* (not a "reflection, duplication," of what went inward) to the external appeal for help.

Why not eat poisons as well as nourishing foods? *Why* does the stomach portray rebellious actions against medicines? *Why* shrink when the surgeon's knife enters the quivering flesh? *Why* object when instruments of torture (traction tables, for instance) are injected or applied against that which damages this temple or with open arms becomes receptive, submissive and loyal to that which is needful and beneficial? If "nature" be your reply, I would ask, "*Where* does she live in this system? by what means and thru what physical channels does she exert or demonstrate her intelligent force? When these questions have been definitely answered, the mystery blown away, the mist evaporated, we will have reached some conclusion; head and tail to our entity. A need which suf-

fering humanity has long needed and supplied by *The P. S. C.'s* philosophical teachings, thus reaching, proving and allowing physical vent to that which M. D.'s and D. O.'s still cling to as "reflex action" or that "connection existing between the action of two or more organs, more or less distant from each other, so that the affection of the first is transmitted according to the others, *by means unknown.*" (*Dunghlison.*) The M. D. or D. O. is not "conscious" of an Innate brain or its "consciousness," but *his* Innate is. It is well that Innate "consciousness" is so placed that he, fool man, cannot trifle with it.

In the study of spinal branches of nerves all fibres do not spray immediately as they leave the spinal column. A cable may remain, as such, for some distance and then begin the process of segregation. The abdomen is a large cavity and contains most of the necessary viscera, thus it needs have many mental impulses and nerves to transmit them. Many nerve cables proceed to a given point (solar plexus) and there separate to twig ramifications. The belly ganglion is but a branching point for the various functional nerves, pairing off to ultimately let each tissue have its complete set of functional conveying fibres. A blow, at this allotting point, would produce great *responsiveness* upon the part of Innate, who would, normally or abnormally, adapt her powers to the "circumstances," be it great or small.

A patient entered the clinic a few days ago. Left side of nose was bleeding. "Boys, we shall adjust a cervical vertebra to correct the cause of this disease." Such an idea, is undoubtedly, new to some. It was to the junior boys, for their notebooks were in evidence immediately. Nose bleed is a disease, and if Innate could adapt herself to such conditions, would try to heal it. Some people never have nose bleed, others have it occur upon the slightest external "circumstances." One adjustment, in the proper manner, stopped this hemorrhage within two minutes. This is not the first, second or third time this has been accomplished. *P. S. C.* students have the advantage of learning from preceptors who have had years of Chiropractic training and experience on all kinds of cases. The quick action, two minutes, following this adjustment is but evidence which shows how accurately and exacting is the adaptation of Innate if but given free range with her power, which healed or brought those muscular fibres together, thus closing the breach.

Reference to the condition of the nose previous to and after adjustment and what change took place will be interesting to illustrate what kind of responsiveness followed the Chiropractic adjustment. Every tissue has its small capillaries of arteries or veins. These, as minute as they may seem, have three muscular walls. The first set's fibres run lengthwise; the second, spirally; the third, transversely. Each has its rhythm of mental impulses, contracting as it goes along, and thus the added motion keeps the blood running forward.

There are membranes covering the external internal and permeating between is serous, which gives to the blood, by osmosis, its serum. If this liquid was not in the blood vessels, the blood would cease to flow; become solid. Take from blood its serum and histologists will agree that man could not live, yet the larger proportion of serum, in transitional stages, has no blood.

These walls, minus mental impulses, partly or completely, become proportionately relaxed and, sooner or later, a rupture is present. If the hernia, lack of muscular tonicity—incoördination—be complete thru the three walls, then arterial blood will permeate *thru the interstices* between muscular fibres, osmose thru serious tissues and, hemorrhage, large or small, according to the area thus involved, follows.

Withdrawal of mental impulses or current causes the tissues to weaken or relax, and a hemorrhage is the result, the blood oozing out between the openings in the wall. By adjustment you restore the normal transmission of currents, going right down to these relaxed muscular fibres, and immediately they draw up to the normal rigidity, close up the opening and the hemorrhage ceases. That is what I call an intellectual adaptation of sympathy—"by means unknown"—showing more than an ignorant activity of muscles.

In this case, nasal hemorrhage took place because we had a definite, specific, local subluxation which impinged upon direct nerves, which conveyed the mental impulses to a direct locality. Adjusting this subluxation, within two minutes, returned coördinated functions (the Innate law of adaptation), and normal condition was the result.

I have had one case of uterine hemorrhage recently, which was nigh unto death, and in two days there ceased to be any flow. Adjusting the subluxated vertebra immediately began to return normal adaptation to the abnormal circumstance—responsiveness—in which that mentality, discriminating in character, sent impulses to these muscles and gave them the tonicity to contract to their normal state. The fibres drew together, the chinks closed—the interspaces grew together, and then and not until, would there have ceased to be an opening. Can you explain, in all sincerity, that those actions of healing are the result of "automatic" work? that such is performed "without consciousness," "by means unknown?" If it is "reflex action," "turning back" upon itself, would it not be worse? *"Itself" is the disease*, and to reflect "back upon" *disease* is but to make *more* disease. This is the M. D.'s and D. O.'s basis—lesion makes lesion—because lesions "reflects" lesions, by means of "reflex action" thru "sympathetic nervous system" "by means unknown." Isn't that beautiful philosophy? (Laughter.)

Your living body, if normal, is but the work of and shows what intelligent responsiveness, when given full sway, will do. Your sick or diseased condition but illustrates the inability of

responses to reach their destination and adapt themselves to abnormal conditions.

If there has been a long pressure upon nerves, the system be depleted or the organ unable to maintain its equilibrium, then this responsiveness, even under the best adjustment, will appear tedious, but even adjustment is farther from effects and nearer to normal. The Chiropractor is an assistant to Innate, opening channels to *responsive actions*.

If you have belief (belief—partial assurance without positive knowledge or absolute confidence), to think that “reflex action,” as outlined and taught in Medical or Osteopathic books or schools, does exist, please give me further proofs than have been advanced. If you suppose that the body is acted upon and being guided by a haphazard, catch-as-catch-can, Græco-Roman actions, I will give you opportunity for debate.

The P. S. C. library is most thoro with authors which can be quoted in numbers. The most flowery speech, couched in the finest of words, galore with medical and Osteopathic scientific terms and tests, taking hours to deliver, can be floored by one philosophic Chiropractic student asking the lecturer a few common sense questions which *he* cannot answer. *Why?* They have unstable promises; none dared to think, to get from ruts, for fear of the code of ethics.

The “reflex action” is on a common with the “sympathetic nervous system.” I do not know what it is and do not know anybody who does. Like the man who could not bear limburger, he did not like it and did not like anybody who did like it.

It is hard to talk about something which is not provable. I have tried to speak about “reflex action.” Our knowledge of cause and law of Innate adaptation to the normal or abnormal proves to *thoro* students the supplantation of that which is practicable and demonstrable on the every day feeling and living subject, and, after all, that is what counts, is to adjust the causes of ailments and deformities in the *living* person, in preference to destroying sex, removing useful organs and otherwise mutilating our bodies, while living and making us well, that is what is left of our tissues after they are burned out by stimulatives or extirpated by the surgeon by hypothetical “sympathy” explanations, and paper, after we are “stiffs,” dead and buried.

I do not believe such a system of “reflex action” (as worshipped, stimulated or inhibited by M. D.’s or D. O.’s) exist.

The thought of belief comes in here with the condition of religion. Does the ordinary theologian know there is a cycle behind all. He thinks there is; he has faith there is. Does the Chiropractor know. Yes, we can say it with absolute emphasis. My religion is not a belief; it is a fact.

Physical strength is limited to the medium through which it acts.

What little results they have had was obtained thru the stimulated impressions *trying to* and, *in a measure*, were accommodated

under great pressure, accomplishing the extra or limiting the *responsive* impulses, thereby when the normal supply had been exhausted a relapse follows eventually, leaving the patients worse, just the same, dying, perhaps, a trifle sooner than if they had been left alone.

The person who does things without intelligence is nonsensical and Chiropractors cannot recognize such as prudent or judicious to follow. Their testimony is only too often riddled by authority of courts, therefore, with the following summary of facts we will dismiss the case for want of sufficient evidence upon the part of our opponents to defend themselves in this trial of *results* before the world:

Elbert Hubbard says, in August, 1911, *Philistine*, "But youth and age are not always a matter of years. Some minds are born with the crow's-feet and the wrinkles of a sapless conservatism chiseled on their every move and opinion. They are spiritually dead before they are born. *They are creatures of reflex action.*"

Chiropractic vs. Medicine and Osteopathy.

Start and Finish vs. "sympathy."

Origin of Power and Point of Expression vs. "sympathetic nervous system."

Direct Functions vs. "duplicature" of "reflections."

Intelligent Responses vs. "Superstitions."

Intelligence vs. "by means unknown."

Knowledge vs. "reflections."

Acute results vs. "*chronic diseases.*"

Knowledge of cause, its adjustment and law of adaptation vs. "Circumstances cause."

As "reflex" is the foundation upon which scientific medicine is based as the unit of action, it is worthy of serious consideration from a standpoint of elucidation of their ideas as compared with ours.

By general consent you admit that cycles are correct. I have yet to meet an objection to any statement contained in cycles. None of those details have been assailed to the extent of proving any step out of place or that cycles as a total were wrong. Therefore, cycles stand because not proven wrong. When a statement cannot be contradicted or proven wrong, then it is as truth. If those cycles are correct, everything is guided by an intelligence as a premise to start our hypothesis with.

You admit that an afferent nerve conveys a given quantity of vibrations from one place to another thru or over an afferent nerve, you know that the destination of that given quantity of vibrations is to keep its identity until it reaches the brain where the mind gives interpretation. Interpretation is the action that intelligence places upon a given quantity of vibrations. Having seen that an impression started at the tissue cell, did go in, reached the mind, the mind interprets it to the extent of seeing a necessity at the end of this afferent nerve for something to change the given quantity of vibrations to a more harmonious quantity consequently

adaptatively that given quantity of vibrations known as Mind, Thought, Innate Intelligence sends down a given quantity of impulsive vibrations. The given quantity returned adaptatively is not the given quantity going inwardly, consequently there is *a change* in the conditions at the tissue cell. Then the second quantity of vibrations going afferently towards the mind is of a different quantity than the first. There is a different interpretation and a different quantity sent down adaptatively.

We are presuming that there is a constant changing and a revolution of an immaterial current through these four mediums, and we suppose that under normal conditions every atom, tissue cell of that complete cycle is continuous, that there exists no broken links between one and the other. Everything actually touches just as much as every atom of chalk on that board touches every other atom so much so that we have a continuity of chalk substance. We presume, hypothetically, that 100% of current is passing through 100% of matter per one second of time. Supposing there were 100 tissue cells necessary to make this complete circuit. There would need to be 100% of current in one given second, providing that we consider one quantity in each tissue cell at the same time. That is, there would be 100% of current in each tissue cell in any one given second of time. This is providing everything is normal, intelligence is interpreting accurately, tissue cell performing function accurately, impressions are formed exact, transmission is being formed in accordance with the impression or interpretation and, responsive function is the same. Normal in every respect; in every attribute, every consideration; brain normal; lives and dies normal; every function normal in every viscera and muscle; then we could argue that the afferent half of a cycle is exactly as per the efferent half. There is never any fluctuation between one side and the other. One-half would then be but a counterpart of the other. The interpretation would be as the function and vice versa.

We are fluctuating. Today a person says, "I don't feel good." Yesterday, "I felt fine." Tomorrow, "I feel miserable." Two weeks ago he was flat on his back. Next day, feeling fair; the next stomach ache, etc. The man is not normal any two days. He is fluctuating at all times. Running up and down the scale from our set standard to any variation your imagination can conceive.

Cutting off ten per cent of current represents a lack in the tissue cell, consequently only 90 per cent reaches there, 90 per cent has transmission and only 90 per cent interpretation takes place. We can't say we have ten dollars when we have nine. We can't interpret that we are worth a million when we don't know where to get a dinner. We can't presume to argue on things that do not in fact exist. We can't presume there is wealth of normality when there is not, but we do presume there is wealth of intelligence behind. It has no limit to its wealth, and so unlimited is it that we say, this is infinity, meaning everything.

Going back to source, you have interpreted only 90%, Innate finds 10% absent. I try to adapt conditions to normal. If we do find, by process of function, that there is a change between the efferent and afferent halves of the function, if in your observations you have seen man does meet an obstacle and circumvent it, then one-half does not accord with the other, and, so far as we show a process of adaptation, whether small or great, just so far are you getting away from the theory that man is an automaton.

Take, for instance, the unexpected occurrences. Walking down the street, feet slip, you fall; down go your hands; you light not only on your hands but—on the hips. At such times you receive a concussion of forces. Adaptability put out the hands. You fell braced with little damage. Walking along the street, the sun is shining and, as you walk, you squint the eyes. There is adaptation. Do you purposely do this? A deafening noise approaches, muscles are all contracted, especially in the ears. Somebody hands you a lemon, get a taste, spit before you thought. Even though you did, there was a spontaneous influx of water that diluted it. You drink laudanum with suicidal intent, immediately the stomach is flooded with splenic fluid, gastric juice, etc.

All shows the process of adaptation. I could enumerate thousands. Take, for instance, the best process of flying today is birds, imitated by flying fishes. The best aviators are those who copy after birds. It is but a process of adaptation. Thus man is getting away from the automatic. We use the term automatic on things that are automatons, but not in relation to intellectual beings. As far as they become intellectual we cease to use the word automatic and automaton and use terms that express the given quantities as they are.

Dunghlison says, every function that you don't do voluntarily is supposed to be guided without sense or knowledge. For instance, you do not regulate your foods, neither does the mother regulate the building of the child, and this is done "without sense or knowledge." Can you, in your experience, conceive that such is a fact that these are recurring haphazardly? I want to account for man in every unit action as an intellectual function. The very foundation of existence, taking place within you, is supposed to be guided by reflex action, according to medical and osteopathic authorities. It is their foundation as cycles in ours, and you know what consideration we give to man if we didn't have cycles. We could not answer any problem or physiological action. Our adjustments would be, so far as practical explanation is concerned, useless; and, without the actual transmission of cycles, nothing in man would be accomplished. To us, cycles; to them, reflex action.

Consider the question of whether circumstances causes adaptation. Can adaptation be the result of intelligence plus circumstance? Can circumstance be the result of adaptation? I take the illustration of a man falling. Falling is the circumstance; can the fall bring forth the adaptation of putting the hands behind, checking itself? Remembering that you cannot answer the question of

law of cause and effect without considering intellectual adaptation, can adaptation be the result of an intelligence plus circumstance? Yes. Can circumstance be the result of adaptation? Yes.

The M. D. or D. O. has passed through many years watching the old hypothesis and theory that circumstances cause adaptation. When you omit the problem in any way, through what physical channels have age, temperament, sex, food and drink, anything to do with man, you fall back upon the logic of cycles. You can't sustain this any other way.

Suppose we grant the point they argue upon, what and where is that substance, thing or place where circumstances are discriminated between? Argue ganglion, then you have 129 and your complexity increases. You argue plexus and you have many variously distributed, in what way are they united? You argue spinal cord segments, and your complexity increases because you understand no intelligence. Go back to even one brain, do it by one route, and I will show Chiropractic. I have never known a physician, philosopher, scientist or medical man but what in logic, in writings on the philosophy of medicine dealing with it from a hypothetical standpoint, talks Chiropractic philosophy. When he comes to doing, he forgets what he wrote. Question a physician severely upon one given point and he will run back to the brain in the skull, impression going to brain, there interpreted and we have the action as a result. "Now, doctor, you have made a bona fide statement. Let us analyze this according to physiology, or anatomy," and watch him squirm. His two arguments won't hold.

Five hundred years ago common carp lived by the millions in China and Japan. They invaded those streams worse than ours. Breeding and selection brought a change though. Some of them were redder than others, another year of hatching and some were redder than the last; and so progress was in vogue year after year. When China and Japan were opened to the United States, lo and behold! the streams were filled with red fish. Later, some were bred yellow. They kept working until eventually they had white, brown, green, and black gold fish. And they were not satisfied. Gradually they had the fan-tail gold fish, and, as he grew, generation after generation, had three tails one split down the center and they called him the fringe-tailed gold fish. Some fish had more tail than body. Today you can pay from fifty to one hundred dollars for a gold fish. He wasn't satisfied, he changed the characteristic shape of carp until it became short, chubby, fat and thick and they called that the barrel-shaped gold fish. Not being satisfied yet, they bred until the eyes changed from the side of the head to on top. Later, those eyes grew on stems outside of the head, called telescope gold fish. Now they have the fringe or fan tail, barrel-shaped, telescope gold fish, and order any color you want. Thus does the process of evolution go on. This is a constant change of adaptation from the brown and greenish carp to the magnificent gold fish of today.

All this change is purely a process of adaptation in the unit cycle by unit quantities per unit matter per unit time. Thus, more than reflex action.

Suppose we grant the hypothesis of the M. D's. Along comes a man, slips, falls, produces a fracture. The circumstance is a fracture. Suppose we grant the hypothesis that circumstance caused adaptation and circumstance will cause adaptation purely and only through the route of reflex action. Admitting we have a spinal ganglion, here is our efferent nerve, there our afferent nerve, immediately an impression went to a ganglion. There no intelligence acted upon it. There is none in that ganglion. It makes crude impressions which reflexes them into crude impulses, because everything involuntary is done without sense, knowledge or consciousness. We have reflex coming from that ganglion, the same that went in. The thing that went in was the impression of a fracture. Back went an impulse of a fracture. We must introduce something into this which was not in it before. Now that a fracture is introduced, you must introduce something which will heal, develop osseous cells; tell them where and how many to go; at certain rates of speed; where to be deposited; how many are there. All this demands intelligence. You must introduce that in addition to what was there before.

Even though I present this, I know if you were called into a house where a fracture had occurred, without warning, "Explain what is going on in this arm," you would say, "The Innate Intelligence in your brain is aware of the conditions. The first impression then interpreted. The cells are coming forth rapidly, and in a few minutes there will be many there." That is the logic you would use, because it is logically logic; but do you mean what you say?

There are many who have not become reconciled to the complete revolution these questions make, and yet they would use these ideas I have been presenting. You could not offer other argument that would call to mind just what others want to know. Are you to be a living contradiction to self or conscience? You can get away from your patient, but there is one fellow you take with you all the time. Are you to argue one thing and do another?

To replace automatic with consciousness, ignorance with intelligence, we must show that which is rational behind every responsive impulse. If you admit there is a single one without, then there can be others; and they can all be without. If you admit that a tree grows without intelligence, then all can do likewise. If you admit that an animal is a brute, then all animals, birds and fishes are alike. If you admit one man is unconscious, then all are. Admit that one function is ignorant means that all can be, and to admit that a single unit function can be by automatism means they all can be. Before you build you must get a unit system. If this reflex unit action is right, then all must be. That is why I spend time on the unit.

If this one unit reflex action is wrong, then ten nor a thousand of them would be right. They are all occurring in different places in different quantities of matter and different quantities of force, but the fundamental is wrong.

There is a specific lobe in the brain with specific cells where every interpretation takes place and responsive action is intellectual. There is a direct specific responsive adaptation and the cell that needs it is the one that gets it, not some other.

While more could be said, I am not going to take time. When you sum up the fundamental physiology of the "sympathetic" nervous system and reflex action and find that it is founded on superstition, dogmatism, studied and taught to cover something not known, using it as a cloak to shield themselves against the knowledge they know they must have but haven't. It is a question of having direct functions; a direct place to start means with a direct finish as opposing the idea of duplicature of functions.

Infantile Paralysis

We are to consider one of the artfully complexed and easiest problems—infantile paralysis—one of the plain, unadorned diseases to the Chiropractor, but the most designing, in 1910, to the medical profession.

Its name indicates *paralysis in infants*. The medical men understand little causatively about infants, regardless of age, especially in relation to *this* disease, for any person between one week and sixty years can and does have “*infantile* paralysis.” The title would, evasively, lead you to believe it confined to children, in the scope of what “children” are.

This title is but another vivid incongruity of the improper appellations given whimsical symptoms, named when but superstitiously understood and mythically practiced.

Dismissing age, what is infantile paralysis *as a condition*? A type of paralysis. What is *any* paralysis? It is a condition named wherein any physiological function, regardless of location, character or scope, is interfered with in the execution of its *normal* function. That is simple, and tells that *all* disease is paralysis—then why should there be so much discussion about this type at this time amongst medical people. What *have* they done, *as regulars*, and what have they not done, and why? What has the *irregular* done or not done, and why? Can it be that they *know* the causes, effects, etc., of other types, and are confused at sight of this one? They are as much at sea with one as another—why this singling? I will show *what* this disease is, how old it is, so far as I know. The world, and you and I, have but heard of it of recent years.

We have heard little about it in younger days, no more than you older people heard about appendicitis until recently. When you were children you knew the old-fashioned “stomach ache,” where your mother laid you across the chair, gave you hot ginger tea and other dopes. You can’t have the belly ache any more; it’s “appendicitis and an operation” at \$150 per rip. 1842 “belly ache” and 1910 “appendicitis” are the same—the difference is in the cost of the “remedy.” The quickest cure for “appendicitis” is to be worth two cents. Medical spasms run in fashions upon ripping and stitching inside the same as cutting and sewing clothes on the outside. The medical man systematically regulates these spells so that one is in *financial vogue* all the time.

In a surgical and medicinal sense infantile paralysis is “prevalent” at this time. They would have you believe it a “most terrible scourge” and that it requires “surgical (or medicinal) treatment.” The “cure” (as they see it) is for Congress to give them more legal rights (a la Secretary of Health), with National Jurisdiction, with a U. S. Constitutional and Supreme Court monopolistic power.

Infantile paralysis was as prevalent twenty or thirty years ago as today, but you hear more about it now because *they* have an embracing object in view, just as we hear more about tuberculosis sometimes than others, especially the last five years. "The Great White Plague" movement is now eliciting the support of all charitably inclined—*they* agitate, *they* ask for, *they* coax, *they* get. The Dr.'s get your donations and the patients dies the same as ever. More money, more "Plague hospitals," more positions, more and fatter salaries. Are all of the staunch advocates of this empirical graft in its dogma-believing sister—the church? What one advocates the other follows. Both play to custom—not posterity—for a living. It behooves each to return the scratch.

I quote from page 104 of the hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives on the Mann bill. The quotation is from a quotation taken from the Tacoma (Wash.) *News*. You will remember that I stated in this lecture that the infantile paralysis scare had for its purpose and intent the forcing of the people to feel scared and then taking advantage of the scare to the end of getting the public to endorse the Owen bill. To that end you will read the quotation in question.

"It is further alleged that the medical colleges are strongly backing the Owen bill, under the belief that it will open a large field of activity to their graduates. Furthermore, it is asserted that the crusades against white plague and other ills have been made as formidable as possible recently in order to impress upon the public, if possible, the need for government control of health matters."

You will note that this is in direct substantiation of the statement that I have strongly and openly made in this lecture.

The following comment shows only too plainly that there is still existing that old known fact that theology has always fought science from the beginning to the end. The scientists have the satisfaction of knowing that the end of the argument is the switching of the theological viewpoint to the conclusion that "the Bible agrees with all true science," but peculiar as it is, "True science" changes as fast as science itself, therefore theology is always the after runner and never precedes science. As science proves itself, the theological views coincide.

This article is aimed directly at the Chiropractic profession of Kansas. Ministers are stale, grooved thinkers. They think and act hand in hand with the medical profession, both bow and nod to the same things at the same time. There are exceptions to all rules, but a general application would not miss many ministers.

AFTER THE FAITH HEALERS

IOLA MINISTERS WILL CARRY THEIR CAMPAIGN TO THE KANSAS LEGISLATURE

IOLA, KAN., Jan. 11.—The Ministerial Association of this city is at the head of a movement which promises to be state wide, looking toward stricter regulation of the practice of the healing art in

Kansas. The ministers believe that for the safeguarding of public health the laws should be revised so as to require all who assume to treat the sick by whatever method to have a license granted from a state board of examiners, after being tested as to their qualifications.

A circular letter containing a copy of their resolutions is being mailed to all the ministerial associations in Kansas. Coöperation in bringing the laxness of the laws to the attention of the legislature is requested.

After each senator and representative has been written, a bill will be introduced aimed at the class of healers and practitioners of whom the ministers assert "many are without the scientific knowledge which would enable them to diagnose disease, detect contagious diseases and to define the limits of their own ability."

Consumption has been and is being lectured upon from the Chautauqua platform *and the pulpit*—from all angles. Steps are being taken by the Government to stamp out "The Great White Plague," or rather these steps are continually forced upon the Government. Who is responsible? The medical men. Was there not tuberculosis in 1820? Did they not have it in olden times? Yes.

We have it impressed more upon our minds at this time, for "it is particularly prevalent at this time; it is running rampant through the country," and for some inexpressible intentions it is "a plague," an epidemic sweeping from coast to coast; therefore we feel the spirit of *fear* for the disease; and "neither young nor old are exempt therefrom." Why, then, all this upheaval, this volcano of statistics and delicate report of failures—deaths? Why this tremendous educational campaign like a hub with endless spokes? The medical man has your brain doped, your actions are stifled, and your pockets continue shelling ducats to repeat the queer wantonness on *your* children. Why? Because we are statutory calves of his legal lusty breeding—he is the bell cow—he bellows; we easily score and patter in the same mire. Cannot the human flies forestall the webby clutches of the spider?

The infantile paralysis scare has been *systematically worked* and kept alive by scheming cliques of physicians which has caused more multitudinous conflicting reversals of opinion amongst honest doctors, in general, than any epidemic of fear. It can be compared with the preceding "crime wave" *that a municipal police department stirs up when an enlarged appropriation or new laws giving it more despotic power is needed*. On such occasions an ordinary crime is "featured" in splotchy red scare-heads and covered with a mantle of mystery day after day. The police decipher new and more sensational clues hourly; this goes merrily on *until the purpose of it all* is achieved and then becomes, obviously, public property. Then the alarming spectres fade away and are forgotten.

HOW TO CURE MENINGITIS

SECRETARY OF THE STATE HEALTH BOARD ISSUES A BULLETIN
THERE'S NO EPIDEMIC IN MISSOURI, DOCTOR HILLER STATES—GIVES
RULES FOR DIAGNOSIS AND TREATMENT—ASKS
PHYSICIANS TO REPORT

Jefferson City, Jan. 30.—Secretary of the state board of health, Frank B. Hiller, issued a bulletin today concerning the epidemic of cerebro-spinal meningitis in other states and its appearance in certain localities of Missouri. Doctor Hiller says a few cases have been reported from Kansas City and at several other places in the state. He believes the disease was not brought here from other states, but its presence is due to atmospheric conditions. It usually attacks children, he says, but adults are not immune, and it is contagious.

Doctor Hiller gives the cause, the proper method of diagnosis and the most approved method of treating the ailment. He urges all physicians who treat cases of cerebro-spinal meningitis to report to the board that more extensive methods may be resorted to for checking it.

The following is a copy of the bulletin :

CAUSE

The infecting agent is a specific germ, the meningococcus, which, gaining access to the meninges of the brain and spinal cord, sets up an acute inflammation, with an increase in the amount of spinal fluid, which rapidly becomes purulent. The infection in the majority of cases enters the body through the nasal passages. The discharges from the nose and the throat are infectious.

DIAGNOSIS

An early diagnosis is of the utmost importance, if benefit is to be expected from the use of antitoxin. By an early diagnosis is meant one made within the first twenty-four hours of the disease. The sudden onset, manifest by intense headache, fever, vomiting, and in children often with convulsions, leads one to suspect this form of meningitis. Delirium, pain in the back of the neck and along the spine and muscular rigidity are also commonly seen early in the disease. Symptoms of this character are especially suggestive when the disease is epidemic, or when the digestive and respiratory systems show no physical signs.

A lumbar puncture, with proper care to avoid infection, is entirely harmless and should be used in suspicious cases, especially during the prevalence of meningitis in a community. If a cloudy or slightly cloudy fluid is obtained, the probability is that the case is one of epidemic cerebro-spinal meningitis, and the antitoxin should be used at once.

Cases of pneumococcus meningitis appear to be more frequent during an epidemic of the meningococcus variety, and mixed infections sometimes occur. These also give a cloudy fluid, but the difference is easily discovered by the use of the microscope.

TREATMENT

It should be clearly understood that the antimeningitis serum is always to be used by injection into the spinal canal. Subcutaneous injection, as in diphtheria, is of no benefit.

To obtain good results, treatment must be begun very early, in the first twenty-four hours of the disease. Such cases properly treated show a mortality of about 30 per cent, as compared with a mortality of 70 per cent in cases not receiving specific treatment. If possible, the antimeningitis serum should be injected at the time the fluid is withdrawn for diagnosis. The amount of fluid that can be obtained is of less importance than the amount of serum that should be injected. Then, if the serum is at hand, it may be injected.

Some little time is required for the antitoxin to obtain its maximum effect. The use of 30 or 45 cubic centimeters of serum is recommended daily for four successive days, without taking into consideration any improvement on the part of the patient. Next to the use of early and large doses, the use of regularly repeated doses is essential. At the time of each lumbar puncture for the purpose of giving the antitoxin, as much spinal fluid as is deemed wise should be allowed to escape. It is also recommended that the foot of the bed be raised immediately following the injection of the serum, with the view of aiding its distribution along the meninges.

The subsequent treatment of a case after the four doses have been given will depend upon the symptoms. It may be necessary to continue the use of the serum, but if the improvement is marked, further doses need not be given unless there is a return of the symptoms.

It is recommended that urotropin be given during the course of the disease; other treatment is entirely symptomatic.

PROPHYLAXIS

The patient should be isolated, and the general rules of quarantine applied, which are used in diphtheria or scarlet fever. The length of time that quarantine should be maintained will depend upon the course of the case. Nose and throat should be in the normal condition and convalescence well established before quarantine is raised.

A mild nasal spray and mouth wash is recommended for use by the attendants.

PLAGUE SPREADS IN OKLAHOMA

MENINGITIS HAS CAUSED FORTY-TWO DEATHS OUT OF ONE HUNDRED CASES

Oklahoma City, Okla., Jan. 30.—Cerebro-spinal meningitis in this state has spread to four additional counties in the last twenty-four hours, cases being reported to the board of health from Atoka, Pushmataha, Kiowa and Custer counties. Two cases were reported from each. Pushmataha and Kiowa, while one case was reported

from each Atoka and Custer. There was one death in Jushmataha. The total of cases reported up to date are one hundred, while there have been forty-two deaths in all. In addition to the cases in the four counties mentioned, new cases were reported from Bryan county, three; Carter, Comanche and Garvin, one each. There was one death in Comanche County, making the day's record twelve new cases and two deaths.

Lawton, Okla., Jan. 30.—Having recovered sufficiently of pneumonia to be out on the street, Charles Gigoux suddenly became ill again today and died. Physicians made an autopsy and pronounced it cerebro-spinal meningitis. It is the fourth death from that disease in this city.

—*News clippings*

Infantile paralysis is *not* a new bugbear, although widely heralded as the most modern of "mysterious diseases." It was known by doctors 30 or 40 years ago. No one worried about it until lately. *As a money-maker for the medical profession* it has eclipsed pellagra or hookworm.

When this excitement was first started it was asserted, for instance, that infantile paralysis sought its victims exclusively among the children of the poor. This theory received a setback when two daughters of Congressman Frank O. Lowden, of Oregon, Ill., were taken ill with what eminent (?) Chicago specialists called "anterior poliomyelitis," which is the fear-inspiring Greek name for the disease. These girls are the grand-daughters of Mrs. George Pullman, and it is said, will inherit her vast wealth. Congressman Lowden, their father, is rich also. So the "*Poor children*" theory was dropped overboard.

Everything from cattle to fleas, cats to sausage, dogs to babies, wallpaper to nursing bottles, nurses to dirt, infection to hygiene, river water to physicians, syphilis to chewing tobacco by the father, have each come in turn for their share of these foolish incongruities. One by one they came upon the mental stage of human activity—each performed "their stunt," received the plaudits of the fickle public, and passed into the museum of failures.

Hardly a day passes without a nefarious theory being exploded. Other stereotyped obscure sorcery takes their place. It reminds one of a detective bureau's avidity for advertisement, and while pretending to seek an alleged criminal spends more time in thinking of fresh ways to keep in the limelight of the day's news.

It is unethical for M. D.'s to advertise, or pay for the same, but physicians cleverly circumvent that by taking advantage of the purposely personally-made excitement over every "much-talked-of disease." He lets the newspapers know that he, as the guardian of the public health, has made some important discovery or evolved another sensational theory as to its origin, treatment, or cure. He allows himself to be interviewed, *reluctantly*, of course. Doing this several times, he becomes a "famous specialist"—something he would not have achieved had he spent money legitimately in display or write-up advertising. Many wealthy surgeons maintain a

press bureau, reporters are paid to magnify the glowing acts of "this great innovating scientist" that devotes his life to science at \$10 per minute, \$150 for a delivery, \$100 per slash, \$18 per stitch, \$4.69 for 16 inches silk thread that costs \$0.14 a spool and \$35 per post-mortem for 65 per cent of his cases. To Physicians of this class a typhoid-fever, smallpox or diphtheria scare is a financial Godsend (where every scratch is sold at \$1 and to amputate the arm three times is sold at \$200 per—\$1 to inject the poison and \$600 to cut off the effects of the pus. And an infantile-paralysis alarm is a Golconda. *The adherents of the "medico-political" school scorn the "foggy" methods of the doctors of the past generation—the men who placed their skill and humanity above all else, and to whom pecuniary reward was incidental.* The excuse of the 1910 M. D. is that his profession is overcrowded; M. D. (*More Dope*) don't pay and the man with the most imagination gets the business. *It is this commercial spirit that is back of the movement to form a national department of health, with its head a cabinet officer, which would place the direction of the doctoring of the inhabitants of the United States in the hands of the school of medicine and give it birth, disease and death monopoly.*

The history of this "infantile paralysis" harvest-scare is one of the most interesting of all recent toothsome opportunities. It displays a breadth of press bureau imagination that rises above the mere picturesque. The conflicting theories and methods of the many mushroom "eminent experts," who have "permitted" themselves to be interviewed, show with startling clearness the absurdity of directing a national health (?) department with such entangling and enriching physicians at its head.

The explanation of the cause of infantile paralysis has been based on scores of hypotheses. Last summer it was the germ-laden dust. Hardly had one set of "eminent physicians" announced the dust *theory* before another, jealous of *their* fame, said it was not dust but chickens that were to blame. They pointed to several cases of infantile paralysis in Montgomery county, Maryland, and to the deaths of chickens in the same region, "both apparently with the same condition." This chicken idea was a brilliant one and it was speedily followed by other equally fanciful vertebrate surmises as to the origin of anterior poliomyelitis. It was successively ascribed to tree blight, soothing syrups, heredity, dampness, the old family mare, chilled food, Buffalo gnat, dissipation and a score of other things. The District Medical Association of Washington, D. C., became so alarmed (?) about the "epidemic" that a resolution was offered at one of its meetings that an appeal be made to President Taft to order *an official* inquiry into the disease. This motion, however, met with defeat. *Certain clear thinking physicians pointed out that "there was no epidemic of infantile paralysis and that the disease was comparatively rare at the best and was less prevalent this year than usual."* But these sensible statements stampeded the physicians' creditors, hence were drowned in another flood of alarming rumors. More doctors rushed into print

with more scare theories. The health (?) officer of Washington, D. C., announced that he disbelieved the chicken idea, but favored "a strict quarantine, as the disease was very contagious." It was ordered that "pupils from homes where a case of infantile paralysis existed should not attend school for 14 days following their last exposure." A canvass of all houses in the District of Columbia to determine the prevalency of the disease was ordered.

The stock of experimenters in the new serums "for the cure of infantile paralysis" has been as heavy as the crop of theories. Every doctor who had spare time (and there were plenty) and an opportunity to use, free, a hospital laboratory, manufactured serums and injected them *into monkeys* and other animals that could not get away. Try as they might, not one of these doctors found a germ that would do such a dastardly crime, or which they could indict for being the *cause* of infantile paralysis.. Sorrowfully they were forced to admit that even with *the most powerful microscope* they could not discover the gleaming blood-shot eye of this heinous lifetaker. They hunted and found not, "but *he was there* just the same"—wasn't the disease there and wasn't *that* caused by a germ? Didn't the man forge his name? Of course, because they found ink and a pen at his office. Far-fetched circumstantial evidence is acceptable to the enthusiastic followers of serum therapy. They not only invented a number of serums of fearful potency, but actually tried them on patients whenever they got (took) the chance. If the patient's temperature went down (because his life ebbed in the balance) the press bureau recorded the success of Dr. So-and-So's serum. If he died, "the germ is so seclusive and exclusive that he could not be found—the experiment was a success—the patient would have got well *if* the test had not failed." As a matter of fact, taking the most unbiased reports as a basis, more sick persons get well from careful nursing and fresh air. To win in this game of germ vs. antitoxin, mankind must be as the hog—be killed to get "cured."

It is acknowledged by the few country compelled-to-be-honest physicians that serums cause the symptoms of the disease—which also are like those of many other maladies. All poisons induce a bodily reaction which brings about illness and suffering. The average mother, if told that her child has infantile paralysis, would become hysterical and hopeless. For the mother to refuse the \$1 squirts and consequent chain of evils would be to seriously break her obligations as it would make a great pecuniary difference to the doctor.

"*The Cyclopædia of Practical Medicine*," by John Forbes, Alexander Tweedie and John Connolly, three physicians (1833), speaking of this subject says:

"Convulsions are so frequent in young children, and so often fatal, that it becomes of great importance to consider *whether their nature, causes and treatment are properly understood*. Without hesitation it may be stated that till very recently authors and prac-

tioners were by far too apt to generalize in these cases, and the practice consequently degenerated into routine, *and that often on mistaken principles.*"

Under "causes" he says: "It has been already stated that infantile convulsions in nearly every case, are to be considered rather as symptoms of other affections, and our mode of treatment must be in a great measure influenced *by the supposed cause.*"

In the observations of 1833, infantile paralysis was considered of a convulsive nature.

"From the first moment of birth a child is liable to convulsions, from pressure on the head during labor, or *from mechanical injury* in artificial delivery; and there is not a malady which can occur during the early period of infancy which may not give rise to an attack. Retention of the meconium, stoppage of the urine, an ill-conditioned state of the umbilical cord after division, an irritable, relaxed, or loaded state of the bowels, a full stomach, air in the intestinal canal, causing painful gripings and oppression, improper food, a strong glare of light, and loud noises, *are amongst these causes*, which are most apt to occur in the first weeks of infant life. As soon as the process of teething commences, from the great irritation and often febrile excitement produced, convulsions are liable to be brought on with every tooth as it makes progress through the gums. Worms in the body being distinguishable by the usual symptoms,"

Thirteen causes are mentioned. Find a patient without these and what would be its cause? Presuming that a child is healthy at 2 p. m. and at 2:15 is paralyzed, could we say that worms could fortify themselves in fifteen minutes? Sometimes the child is "stricken" in one minute—would "a loaded state of the bowels" be so quick? Would "the process of teaching" commence "infantile paralysis" in an adult of sixty-five? Finding no satisfaction under cause, let us pass on to "*Prognosis*" and see if light is shed.

"In prognosticating the result of a convulsive attack, regard must be chiefly *had to the causes, if they can be ascertained, the possibility* of removing them being the ground on which we should rest our opinion, but though this will be our safest guide as to the probability, it must be always recollected that any single paroxysm, if severe and long continued, may be fatal. We must also be partly guided by the constitution of the child; a very irritable constitution will be thrown into convulsions by much slighter causes than one more robust and of a less degree of susceptibility; the prognosis, therefore, in the latter cases should be more guarded."

Under treatments, prevalent at that time (1833), he speaks of blood-letting.

The *fashion* that killed George Washington was "blood-letting." The blood caused the fever—he was bled until he had no more to lose—the fever still existed. Problem—Did George Washington die of fever or too little blood?

Quoting from *Lectures on Nervous Diseases*, by Ambrose L. Ranney, who was a physician and a master of arts:

"This condition sometimes co-exists with lateral sclerosis. It frequently occurs, however, as an independent affection, especially during childhood."

Under "*Morbid Anatomy*" he gives the clearest explanation I have seen:

"When these cells become inflamed, their function is at once arrested; hence sudden paralysis is developed, provided the inflammatory action be of the acute type. If the gray matter be so affected beyond the possibility of recovery, acute pigmentary degeneration of the cells so attacked apparently follows. The name poliomyelitis expressed the seat of the lesion, as well as its inflammatory character."

The point seems logical. When these cells, speaking of the anterior coruna of the spinal cord, "become inflamed, *their function* is at once arrested."

Speaking under "Etiology" (which refers to *the cause* of infantile paralysis), he says:

"THE INFANTILE VARIETY has been known to follow exposure to cold or dampness, over fatigue of the muscles, some forms of blood-poisoning (such as eruptive fevers, diphtheria, lead-poisoning, etc.) dentition and traumatism. *Some cases develop from imperfectly understood causes.* It generally occurs before the second year,—seldom later than the seventh year. It is most common among boys.

"THE ADULT VARIETY seems to be excited chiefly by exposure to cold or dampness and over-exertion. It may develop between the ages of twenty and fifty years. One of my patients was so affected (after severe exertion and excessive indulgence in alcohol) from sleeping on the ground during a summer shower. The paralysis in this case attacked the muscles which were chiefly employed by him in his occupation."

In speaking under "*Prognosis*," referring to the eventual outcome of the case, he says:

"In cases afflicted with poliomyelitis, partial or complete recovery usually takes place. Some of the muscles may undergo permanent atrophy. Deformities may ensue from post paralytic contracture in some cases. As a rule, the electro-muscular phenomena return to the normal standard in the muscles which are least affected. The power of motion is regained with greater or less rapidity and completeness, and the reflexes tend to return to the condition of health. If the muscles continue to respond at all to the faradic current during the height of the attack, it is safe to predict a total recovery. I have never seen a muscle undergo permanent atrophy when it constantly preserved even a trace of faradic excitability. If the disease creates interference with the action of the respiratory nerves, it is possible for a fatal termination to take place. Happily such instances are uncommon."

Under "*treatment*" he says:

"There exists experimental as well as clinical evidence to show that a regeneration of the cord may sometimes take place after a serious injury. Hence we are justified in devoting particular care and attention to the medical and mechanical treatment of the peripheral manifestations of spinal diseases with the hope that the cord itself may be stimulated and eventually regain its functions."

Quoting from *The Dictionary of Psychological Medicine*, by Tuke, on page 665, we find the following:

"The most frequently alleged cause of idiocy and imbecility is no doubt Eclampsia (infantile convulsions). To this cause about one-third (32.58) of Dr. Shuttleworth's and more than one-fifth (22.11) of Dr. Beache's cases are attributed. The combined percentage is 27.39.

Quoting from "*THE INTERNAL SECRETIONS and the PRINCIPLES OF MEDICINE*," by Sajous, on page 769, in which he deals with one phase of the question, he says:

In the supplement, the following on "Acute Anterior Poliomyelitis":

"An acute febrile disease which occurs in children towards the third year, characterized by a sudden onset, fever, headache, pains in the back, limbs and joints, delirium and sometimes stupor convulsions. After a couple of days these symptoms subside and paralysis of various muscles in one or more limbs appears suddenly, the muscles involved wasting rapidly though sensation and sphincter action remains normal. It is probably an infection, the brunt of which occurs in the gray substance of the anterior horn, usually localized in the cervical or lumbar enlargement, in which the inflammatory process, at first a marked intrinsic congestion of all nervous elements, including the ganglion cells, tends to atrophy and finally to become sclerosed.

"Treatment: The fever having for its purpose to destroy the pathogenic cause, the chances of paralysis are increased when the febrile process is antagonized. To increase its efficiency Calomel in small frequently repeated doses until the stools become greenish, followed by a dose of CASTOR OIL. To prevent development of paralysis warm (106). SALINE SOLUTION enemata, and if possible, subcutaneous injections (to increase the fluidity of the blood and insure free circulation of the auto-antitoxin-laden plasma in the spinal neuroglia, its cells and the exposed ganglion cells.

"During the first month, and to a certain extent during the first few months, there is a tendency to spontaneous resolution; continuation of SALINE SOLUTION for the same purposes as above, and ATROPINE or TINCTURE of BELLADONA, alternating with STRYCHNINE, to increase the propulsive activity of the arterioles, including those of the cord, nerves and muscles exposed to degeneration. MASSAGE—invariably rubbing centerpetally to enhance the nervous circulation—simultaneously; FARADISM of the exposed muscles and out-of-door life are important adjuvants."

Referring to *Butler* on "*Diagnostics*," he does not come anywhere near to giving a definite statement of infantile paralysis. Butler overlooked this question. The nearest he comes to it is in hemiplegia—that is, an infantile paralysis of monoplegic or specific type.

Referring to "*Diseases of the Nervous System*," by *Mattler*, who is, I believe, today the greatest authority on "*Diseases of the Nervous System*," we find under this particular head:

"During their early years children are very subject to convulsive seizure upon various provocations. It has been suggested that this is due to the immature and undeveloped condition of their nervous apparatus, especially the weak condition of the higher inhibitory centers, a reason which has some plausibility in it, but fails to account for the convulsions of child-bed and uræmic poisoning."

Under "*Etiology*" he says:

"The causes of infantile convulsions are numerous, though they may all be grouped under any one of the three heads, REFLEX, INFECTION and PSYCHIC. Rickets and general debility are very important factors in the production of the trouble. Just how much is to be attributed to the cachexia itself, and just how much to the various disturbances which the cachexia leads to, it is not easy to say. Rickets occur chiefly between the sixth and eighteenth months of life. It is a condition that fosters development normally, and is most active. As a result it leads to bad dentition, to gastro-intestinal irregularities, and to defective nutrition generally. A rickety child, as a rule, will exhibit a large number of local malformations and functional abnormalities. These taken in conjunction with the general defective nutrition constitutes a long list of causes of infantile convulsions. The laity always think of worms first among the possible causes, but they are not such frequent factors as auto-intoxication from gastro-intestinal defects, the distress of difficult dentition, overloading of the stomach, especially with indigestible food, profuse diarrhœa, etc. Phimosis, otitis media, inguinal hernia and other sources of peripheral reflex of an abnormal character acting upon a badly nourished and undeveloped brain, may all be counted among the causes.

"Infectious fevers very frequently start in children with a convulsion. It is probably of the same nature as eclampsia, now under consideration, though, as a rule, it is not regarded as the same. It is thus seen in scarlet fever, measles, pneumonia, etc. As a symptom of brain disease, congestion, inflammation, hydrocephalus or meningitis, it must be remembered. Natal hemorrhage may induce a convulsion immediately after birth, to be followed later by all the usual sequelæ, such as hemiplegia, epilepsy and mental deterioration. Mental shock, such as fright, night terror, fear upon being suddenly left alone, has provoked convulsions."

Under "Prognosis" he says:

"This is always serious. Some children are able to pass through the ordeal, but weak and debilitated infants usually succumb. Infant mortality is largely dependent upon eclampsia. They usually occur in more robust children. Chronic diarrhœa with eclampsia usually means death. The prognosis also takes in the question of seizures, being those of genuine epilepsy. After the third year eclampsia is practically never seen."

Under "Treatment" he says:

"Remove causes that can be removed and treat those, like the rickety condition, in the usual way with syrup of iodide of iron, codliver oil, hypophosphites, etc. Every mother knows the value of sudden immersion in a warm bath. Bromides, chloral and chloroform inhalations are invaluable means for controlling the spasms. Morphia hypodermically or nitrite of silver may have to be tried in an attack. Bromides can be continued afterwards."

Speaking further, on page 541, under "*Acute Anterior Poliomyelitis of Infants,*" he says:

"This is a common disease and is sometimes known as INFANTILE PALSY, ACUTE ATROPHIC SPINAL PARALYSIS, or CERNIAL MYELITIS. As it is primarily an inflammation, it should be treated under the general head of inflammations of the spinal cord. By some writers it is considered among the systemic disease of the cord, because the primary disease process is limited to the column of gray matter that makes up the anterior horn, with mere secondary processes in the peripheral motor neurones. In my opinion, logical sequence demands that *it should be distinctly ranked under the head of a LOCALIZED INFLAMMATION of the cord,* for reasons which will appear when I discuss its pathology and pathogenesis. The disease is characterized especially by Flaccid Paralysis and atrophy with certain consequent manifestations, the paralysis and atrophy being limited to individual muscles or groups of muscles, because of the damage to their representative columns in the anterior horns."

Under "Etiology" he says:

"The most striking feature of the etiology of infantile palsy is the AGE at which it occurs. Though it may appear at any period of life, it is preëminently a disease of early childhood. The great majority of the cases occur in the second and third years, when the child is beginning to walk and is undergoing the process of dentition. The disease is very rare before the fifth month and is not often seen after the fourth year. According to *Sinkler* it has been known to start before birth, giving rise to a CONGENITAL TYPE of the disease. It is slightly more frequent in boys than girls. Heredity shows its influence, probably neuropathically, in a very small percentage of cases. It has occurred in several members in the same family.

"The great majority of the cases take place in the hot months of the summer. It would seem that certain *time-honored alleged causes,* such as sudden chilling of the body, over-exertion, trau-

mata, etc., would be more operative at this time when the child is more out of doors and at greater liberty than in the winter, when he is restrained and closely protected. And yet it is now pretty generally agreed that those *supposed causes* are subsidiary or at least especially operative in only a limited number of cases. *The cause of infantile palsy is, without doubt, some form of INFECTION.*

"The influence of sudden changes of temperature as a contributive cause along with the infection is strikingly shown in Painter's report. The majority of the cases occurred in, or more frequently twenty-four or thirty-six hours after periods of extreme heat; and in some instances immediately after a sharp drop from an abnormally high temperature, or both, in the ocean. The disease has even attacked domestic animals, such as fowls, dogs and horses. In the Vermont epidemic a typical case occurred in a man seventy years of age."

Under "*Symptoms*" he says:

"The beginning of the disease is *usually abrupt and unexpected*. After a happy day with its playmate, romping in the open air, the child comes in and complains of extreme weariness and distress. Its head begins to ache. It is nauseated and may vomit. It is listless and clings to its mother's arms. Perhaps it has a *VIOLENT CHILL*. The face becomes hot, dry and flushed. It may soon become stuporous and even slightly delirious. There may be a general convulsion. The child refuses all food and in every way shows that it is decidedly sick and *FEVERISH*. With or without the advice of the family physician the mother regards and treats the condition as probably a cold, an acute attack of indigestion, distress from the teeth or the possible beginning of an attack of measles. It is put to bed and passes a feverish and restless night. The temperature has been anywhere from 102 to 104 degrees F. In the morning the child wakes up with perhaps a slight diminution of the febrile symptoms, but *COMPLETELY PARALYZED* in the legs or arms. This is the frequent way that the disease starts. The *FEBRILE STAGE* lasts from a few hours to a few days. Sometimes it is so brief and the paralysis comes on so suddenly that one involuntarily thinks of hemorrhage—(a Chiropractor would not—one thinks of spinal cord mechanical pressure and the other extravasated liquid spinal cord pressure—one would be induced to mechanical disarrangement and the other to a supposed hemorrhage). At other times it is so prolonged that for many days no diagnosis is possible. For his own credit's sake the physician will always, in such doubtful cases, keep in mind the possibility of acute poliomyelitis and inform the family of that possibility. To the average layman paralysis is a most awful disaster, and though when the paralysis comes on the physician may assure the family that it will, in large measure, disappear or recede, it will not restore the confidence shaken by the shock of seeing their child suddenly paralyzed and by their not having been forewarned of such a possibility.

"When the paralysis is discovered the general febrile disturbance has usually subsided somewhat. *There may be some rheumatoid pains complained of in the back* and extremities for a few days, or there may be retention of urine or some slight gastrointestinal trouble. The PARALYSIS, however, is the dominant symptom. This is FLACCID and COMPLETE from the beginning. Usually it is *Paraplegic* in distribution, involving both legs entirely. Sometimes it involves only one leg, or one leg and one arm, or one arm alone, or both arms. Paralysis of one leg or one arm is by far the most frequent way it appears. Paralysis of both legs is perhaps the third most common distribution. Paralysis of the four limbs, quadriplegia, or of the two arms alone, crossed paralysis or hemiplegic paralysis is very rare. Usually the paralysis includes the whole limb and reaches its height in a few hours or a few days. In a short time it is noticeable in some of the muscles or muscle-groups, but not on others. (From this statement of possible area of distribution it is possible to define infantile paralysis as any form of paralysis.) The extreme paralysis in the latter may last from six to eight weeks, when there is a little recession in their paralytic state. These MUSCLES now begin to DEGENERATE, waste and undergo a progressive and rather rapid ATROPHY. Their electrical examination reveals the phenomena of the REACTION of degeneration. The REFLEXES in which the atrophied muscles are concerned are lost.

"These four symptoms, FLACCID MOTOR PARALYSIS, LOSS OF THE TENDON REFLEX, ATROPHY AND THE REACTION OF DEGENERATION are pathognomonic of eminent characteristic of the paralysis of infantile palsy in that it is a degenerative one, and that it picks out particular muscles and muscle groups. The muscles of the leg that are mostly affected are those of the anterior tibial group. Sometimes only the extensors of the leg are involved. The sartorius usually escapes. In the arm the deltoid and shoulder muscles are chiefly implicated. The deltoid may be paralyzed alone, or in combination with the biceps, internal brachial and supinator motor cranial nerves have been included. *A slow improvement may take place in some of these muscles up to the end of a year. After that no further improvement is to be expected.* Gowers says that we should never forget that *after six months the lesion in the cord has practically become a cicatrix.*

"There are no sensory symptoms that belong to this disease. Sometimes in the beginning there are dull pains of a rheumatoid character in the muscles. If these pains become severe or the muscles are peripheral, neuritis with the poliomyelitis is common. In a word, the sensations are absolutely normal in uncomplicated infantile palsy. The slight decrease in sensibility in the paralyzed limb is undoubtedly due to the vasomotor disturbance and lowered temperature amounts to several degrees and is associated with a bluish, mottled appearance of the skin.

"There are no psychic troubles except the early febrile stupor and delirium, and the sphincters are never involved."

"The whole limb ceases to grow as rapidly as the well limb: the bones do not continue to develop, and as a result the whole extremity appears stunted, shortened and awkward in movement. On account of the atrophy and contractures in certain of the muscles, antagonistic groups do not work together as they should and DEFORMITIES and CURVATURES result. Talipes equinus, talipes varus and valgus are thus produced, as well as deformities about the knees and curvatures in the spine. The most common form of foot deformity is PES EQUINO-VARUS, on account of the paralysis of the extensors of the foot and toes. When the tibialis anticus alone is affected, there is a condition of talipes valgus. When the calf muscles are stricken, pes calcaneus obtains. The clawhand is a far less frequent form of distortion than are any of those of the feet. *In the spinal column there may occur lordosis or scoliosis.*"

Under "*Prognosis*" he says:

"In the early or febrile stage the diagnosis of acute anterior poliomyelitis is *always uncertain and sometimes impossible*. Even after the discovery of the paralysis there may be doubt as to the exact cause of it. Very rarely, therefore, is the diagnosis of infantile palsy ever made early. The symptoms at this period of the disease are made light of. They are attributed to dentition, gastro-intestinal trouble, over-exertion, and heat, intestinal parasites or some other trifling ailment. The parents are assured that the little one will soon be all right. One can easily imagine the feelings of the parents and the chagrin of the physician under these circumstances when the paralysis is recognized at last.

"The early diagnosis of the disease is most desirable therefore for more reasons than one. The physician will do well to remember that the PARALYSIS is the special, significant symptom, and after forewarning the family be on the alert for the first indication of it. *It usually comes on quickly, even sometimes with the beginning of fever, rarely later than a few hours or days.* An appearance of weakness, listlessness, exhaustion, disinclination to move the limb should be prompt to awaken suspicion."

Under "*Prognosis*" he says:

"The prognosis of acute anterior poliomyelitis in regard to life is absolutely favorable. In regard to the recession of the paralysis in part and improvement *within the first six months of a year it is favorable. In regard to any further improvement after the first year it is absolutely bad.*

"Death has been reported in the first stage, possibly by involvement of the bulbar nuclei or other complication. Neither the disease nor its sequelæ cause a fatal issue except in the rarest instances. *A few complete recoveries have been observed. Improvement—and sometimes a great deal of improvement—is what may be usually looked for. The amount and character of the improvement and the degree and nature of the sequelæ can be influenced*

by the early treatment. Electrical examinations help much in forecasting the probable improvement. Muscles that still respond to the faradic current after two or three weeks of degeneration they will remain paralyzed and later on become atrophied."

"TREATMENT—The early treatment of infantile palsy is antipyretic and constitutional; *the middle treatment is NEUROLOGICAL and ORTHOPÆDIC*; and later treatment is ORTHOPÆDIC and SURGICAL."

In speaking of Poliomyelitis of adults he takes the same stand that he does with infants.

Referring to "*The Cyclopaedia of the Practice of Medicine*," by Siemssen, under "*Diseases of the Nervous System*," he goes into the question very thoroughly. He says on page 665 and 664:

"Jacob von Heine is doubtless entitled to be considered as the actual founder of the doctrine of acute spinal paralysis in children. In 1840 he wrote a monograph on the disease and gave an exhaustive clinical representation of the same, especially with reference to the atrophy and the deformities of the second period. It is true that some individual cases had been described before his time (by Underwood, 1784; Shaw, 1822; Badham, 1825; and others), *but the knowledge of the disease has remained very limited, and its separation from other forms of paralysis during the age of childhood was not yet established.*"

This book states that Jacob von Heine was the founder of the doctrine of Infantile Paralysis and that he described it in a book in 1840, and yet we read from a book tonight that described it in 1833.

In speaking under "*Etiology*" and "*Pathology*" he says:

"There is undoubtedly a striking PREDISPOSITION to this disease in the AGE OF CHILDHOOD; children between one and four years of age being by far the most frequently attacked by it. Duchenne and Fils even report one case in a child 12 days old, and one in a child a month old, and the number of instances of the disease increases in the second half of the first year of life.

"Various explanations have been given of this predisposition of the age of childhood. Probably the least satisfactory doctrine is to the effect that the physiological condition of the central nervous system in such young children of itself causes greater irritability and liability to disease of the same. C. Lange believes *that the beginning of the exercise of voluntary movements at this age, especially those of walking, not infrequently causes over-exertion of the spinal cord, and thus induces a susceptibility to disease of the same.* Dentition, however, has been more frequently involved than anything else in explanation of this fact, and Heine in particular has emphasized the not rare occurrence of the symptoms of difficult dentition in disturbances which are so often associated with dentition to exactly determine the predisposition to disease of the cord. It is quite as reasonable to suppose that, the predisposition being already present, dentition merely serves as the exciting cause, and thus calls forth the disease. At all events

it seems that if dentition really stood in a casual relation to the spinal paralysis of children, the disease would necessarily be far more frequent than it is.

"Another fact, which is now sufficiently established, viz., that for the occurrence of the disease AT LATER PERIODS OF LIFE, also goes to disprove that intimate connection of dentition therewith. In fact, the disease has been observed at all ages up to the sixties, although with less frequency than during childhood."

He goes into the heredity phase and disproves it. He says:

"In the majority of instances there is no evidence whatever of any hereditary influence or neuropathic tendency. Duchenne even states that he never saw two cases in the same family. But Hammond reports its occurrence in two brothers, and Meyer saw it arise simultaneously in twin brothers after measles. Duchenne, Fils, reports a case in a child whose father died of tabes, but considers this as a mere coincidence. I have seen a similar case.

Neither do the DYSCRASIAS often present in childhood (rachitis, scofula, syphilis) appear to have any demonstrable influence in the production of this malady. Heine expresses himself very positively on this subject. On the contrary, it is just the blooming, robust and strong children that are most frequently attacked by the disease.

Our knowledge with regard to the exciting causes of acute spinal paralysis is just as scanty as that concerning the predisposing causes. In a large number of instances not the slightest cause can be assigned. Children are often attacked with the disease in the midst of the most blooming health, and physicians and parents strive in vain to discover any cause therefor.

"In a minority of instances the fact of TAKING COLD has evidently been shown to be the cause. This has been repeatedly and undoubtedly demonstrated in children as well as adults. In Lile's case the disease appeared immediately after a cold bath, which the patient had taken while sweating and after lively sexual excitement.

"In other cases—and they are tolerably frequent—no other cause can be assigned than normal or difficult DENTITION. The irritation of teething has, from all time, been a favorable method of explanation for every conceivable trouble of infancy, especially those of a nervous character. At the same time it is supposed that the circulatory and nervous disturbances which are undoubtedly often associated with dentition might develop this disease in a spinal cord predisposed thereto.

"TRAUMATIC INFLUENCES of various kinds have repeatedly been regarded as causes; with what degree of justice it is hard positively to determine."

In speaking of the distribution of the paralysis he says that any muscles of the body can be involved, one or both legs—one or both arms. He makes the same reference with regard to the adult. Reaching the same conclusion.

"When this malady attacks adults we have essentially the same picture of disease presented to us as in children."

Defining "*infantile paralysis*," he says:

"CLINICALLY considered, the disease presents itself as a motor PARALYSIS, usually developed without fever, with but slight general disturbance and insignificant disturbances of sensibility."

Speaking under "*Etiology*," he says.

"*The causes of the disease under consideration are as yet exceedingly obscure. Nothing is known of any definite PREDISPOSITION thereto, and no hereditary influences have as yet been demonstrated.* All the cases observed thus far have been in adults, and, indeed, between the ages of thirty and fifty, as is also the case with the majority of other chronic spinal diseases.

"Under the head of EXCITING CAUSES, *traumatic injuries have been cited—a fall upon the hip or back; furthermore, gross exposure to taking cold, camp dwelling, and, in the case of Klose, free indulgence in beer and excesses in venery. All these are mentioned as possible etiological conditions. In the majority of cases, however no definite cause for the disease can be demonstrated.*

"We must, however, here briefly call attention to one etiological factor which is as yet of hypothetical, though perhaps of very great significance; that is 'CHRONIC LEAD POISONING.'"

Referring to "*Oppenheim's Diseases of the Nervous System*," by Dr. Hayer, speaking upon this question says:

"In 1900 *our knowledge of the etiology is still imperfect. Heredity does not seem to play an important part*, though I have seen the disease in mother and daughter. On the other hand, there are hereditary family diseases of the nervous system which seem to be closely allied to this affection. (If the daughter were sick the explanation would be 'Infantile paralysis is a hereditary disease.' What is its cause? '*Hereditary*' having *where* she got it was 'Hereditary' we (?) step back to parents. Where did he or she get it? There must be a *direct cause* and an excuse for the daughter *will not* answer for the parents.)

"TRAUMATIC (injuries to the gravid uterus) seem to be an important cause of this disease in foetal life. (How about males?) Psychic excitement seems to have been a cause in some cases (Erlenmeyer, Osler). Of great importance are the injuries which are intra partum. PREMATURE BIRTH, DIFFICULT DELIVERY with a narrow pelvis, difficult delivery of the after coming head, twins, asphyxia of the new born,—these are the conditions which often give rise to the disease. Forceps delivery is also blamed, although it does not appear to be as much the use of the instrument as the factors which render its use necessary. These traumata produce Meningeal HEMORRHAGE, which affect the meninges over the motor zone and evoke lesions of the cortex (Sarah McNutt). Hemorrhage is especially due to the veins being run away before entering the sinus (Virchow.)"

He says later, "The bacteria act through the vascular system upon the brain." ("The cow jumped over the moon," but luckily statements do not make or unmake questions or disputes of science. I maintain that medical men jump to a conclusion on this germ subject. "The head wagged the tail" is good until I ask "*how*" and *what* did it. Where is *the process* between "bacteria" and "vascular system?"—where are the intermediate analytical steps between "vascular system" and "brain?" An endless chain is well until it must be linked—then a *process* is necessary.)

Under "*pathologic anatomy*" he says:

"There is no single anatomic basis. *Our knowledge of the INITIAL LESION is very incomplete.*

"At a later period it is by no means always possible to recognize the nature of the original disorder, as certain conditions, such as duration and atrophy of the hemispheres or a greater part of them seem to be the result of all the above mentioned alterations. *All harmful conditions affecting the infantile brain act unfavorably upon the motor conducting paths and tend to inhibit their development.* Premature birth is also supposed to do likewise."

Gould, on his definition of "*Infantile*" refers us to "*Paralysis*." Referring to "*paralysis*" we receive no specific definition. Referring to "*Paralysis Infantile*" we get a disease peculiar to childhood, and characterized by *sudden* paralysis of one or more limbs or of individual muscle groups, and followed by rapid wasting of the affected parts, with reaction of degeneration and deformity. It is most common in the first year and during the warm months. *It may be produced by traumatism*, exposure to cold, or may follow exanthem. The tendency is now to consider it infectious. (The wind has a "tendency" to blow north. As the wind blows, so is there a "*tendency*" of theories to blow through scientific men's minds—when one "tendency" is gone we get another—the strength of medicine lies in its passive and active "*tendencies*"; it does not lie in their overwhelming strength of proofs of facts.) *The paralysis is due to changes in the anterior cornua of the gray matter of the spinal cord*, with degeneration of the multipolar cells and gradual disappearance of their process. *In accordance with the occurrence of these changes in the lumbar or cervical region the legs or arms are affected.*

In *Dunghlison* we find under "*Infantile*" nothing new, but are referred to "*Paralysis*." Under that head he says of "spinal paralysis," "infantile paralysis," "anterior poliomyelitis or anterior cornual myelitis; disease chiefly of young children characterized by *suddenness* of attack and by total or nearly total absence of reflexes."

Referring under head of "*Poliomyelitis*" we find:

"*Inflammation of gray matter of the spinal cord.*"

In speaking of this disease *Osler* says (*Practice of Medicine—Osler*):

"This disease was *formerly believed to be* due to an acute inflammation of the cells of the ventral horns, depending upon a

selective action of the poison for these cells, and could, on the theory, have properly been classed as a systemic disease of the lower motor neurones. Later observations indicate that the distribution of the inflammation depends upon the blood supply, and possibly *that a thrombotic or an embolic process may act as the exciting cause of the inflammation. Just why this process should always act through the arteries supplying the ventral horns has not been explained.* In any case, the disease appears to be a local inflammation, and not a system disease. The symptoms are confined to the motor system, and for this reason it is considered here and not with the local lesions of the spinal cord.

“DEFINITION—An affection occurring most commonly within the first three years of life, characterized by fever, loss of power in certain muscles, and rapid atrophy.” We have *first, fever; second, lack of muscular power, and third, a product of the former two—atrophy.*

Dr. Osler is more frank in his explanation as to cause than any author we have met.

“ETIOLOGY—*The cause of the disease is unknown.* It has been attributed to cold, to the irritation from dentition, or to over exertion. Since the days of Mehibosheth, *parents have been inclined to attribute this form of paralysis to the carelessness of nurses in letting the children fall,* but very rarely is the disease induced by traumatism, and in perhaps a majority of the cases the child is attacked while in full health.

“SYMPTOMS—In a majority of the cases, after slight indisposition and feverishness, the child is noticed to have lost the use of one limb. Convulsions at the outset are rare, not constant as in the acute cerebral palsies of children. Fever is usually present, the temperature rising to 101 F., sometimes to 103 F. *Pain is often complained of in the early stages. This may be localized in the back or between the shoulders.* Any pressure on the paralyzed limbs may be painful, causing the patient to cry out when he is moved in bed. The paralysis is abrupt in its onset, and, as a rule, is not progressive, but reaches its maximum in a very short time, even within twenty-four hours. It is rarely generalized. The suddenness of onset is remarkable and suggests a primary affection of the blood vessels, a view which the hemorrhage character of the early lesion supports. *The distribution of the paralysis is very variable.* Its regularity and lack of symmetry is quite characteristic of the disease. One or both arms may be affected; one arm and one leg, or both legs; or it may be a crossed paralysis; the right leg and the left arm. In the upper extremities the paralysis is rarely complete and groups of muscles may be affected. As Remak has pointed out, there is an upper-arm and a lower-arm type of palsy. The deltoid, the biceps, brachialis anticus, and supinator longæ may be in the former, and in the later the extensors or flexors of the fingers and wrists. *This distribution is due to the fact that muscles acting functionally together are represented near each other in the spinal cord.*

"In the legs the tibialis anticus and extensor groups of muscles are more affected than the hamstrings and glutei. The muscles of the face are very rarely, the sphincters hardly ever, involved: *While the rule is for the paralysis to be abrupt and sudden, there are cases in which it comes on slowly and takes from three to five days for its development.* At first the affected limb looks natural, and as children between two and three are usually fat, very little change may be noticed for some time; but the atrophy proceeds rapidly, and the limb becomes flaccid and feels soft and flabby. Usually as early as the end of the first week the reaction of degeneration is present. *The nerves are found to have lost their irritability. The muscles do not react to the induced current, but to the constant current they respond by a sluggish contraction, usually to a weaker current than is normal.* The paralysis remains stationary for a time, and then there is a gradual improvement. *Complete recovery is rare, and, when the anatomical condition is considered, is scarcely to be expected.* The large motor cells of the cornua, when thoroughly disintegrated, cannot be restored. In too many cases the improvement is only slight and permanent paralysis remains in certain groups. Sensation is unaffected; the skin reflexes are absent, and the deep reflexes in the affected muscles are usually lost.

"PROGNOSIS—*The outlook in any case for complete recovery is bad.* The natural course of the disease must be borne in mind; the sudden onset; the rapid but not progressive loss of power, stationary period, then marked improvement in certain muscle groups and finally *in many cases contractures and deformities.* *There is no other disease in which the physician is so often subject to unjust criticism, and the friends should be told at the outset that in the severe and extensive paralysis complete recovery should not be expected.* The best to be hoped for is a gradual restoration of power in certain muscle groups. In estimating the probable grade of permanent paralysis, the electrical examination is of great value.

"TREATMENT—*The treatment of acute infantile paralysis has a bright and a dark side. In a case of any extent complete recovery cannot be expected; on the other hand, it is remarkable how much improvement may finally take place in a limb which is at first completely flaccid and helpless.*

"Of medicines, in the early stage, ergot and belladonna have been warmly recommended, but it is unlikely that they have the slightest influence. Later in the disease strychnia may be used with advantage in one or two minimum doses of the liquor strychnia, which, if it has no other effect, is a useful tonic.

"The most distressing cases are those which come under the notice of the physician six, eight, or twelve months after the onset of the paralysis, when one leg or arm or both legs are flaccid and have little or no motion. Can nothing be done? A careful electrical test should be made to ascertain which muscles respond. This may not be apparent at first, and several applications may be

necessary before any contractility is noticed. With a few lessons an intelligent mother can be taught to use the electricity as well as to apply the massage. If in a case in which the paralysis has lasted for six or eight months no observable improvement takes place in the next six months with thorough and systematic treatment, *little or no hope can be entertained of further change.*

"An acute poliomyelitis in adults, the exact counterpart of the disease in children is recognized. A majority, however, of the cases described under this heading have been multiple neuritis; but the suddenness of onset, the rapid wasting, and the marked reaction of degeneration are those by some to be distinguishable features. Multiple neuritis may, however, set in with rapidity; there may be great wasting, and the reaction of degeneration is sometimes present. The time element alone may determine the true nature. Recovery in a case of extensive multiple paralysis from poliomyelitis will certainly be with loss of power in certain groups of muscles; whereas, in multiple neuritis the recovery, while slow, may be perfect."

We have listened at length of what these revolving theorists do not know. I could cite you sensational newspaper statements and barbarous scientific reports of modern times, but they duplicate what has gone before. The only contrast is the change of the "fashion of blood to germ"—of one drug to another—of one misunderstanding to a miscomprehension of turning scientific defeat to legal victory. There is only one way to do so. Frankly admit their inability to do anything, but blame the people for carelessness in following out orders, quarantines, etc., and then say IF we had the power to force people to dogmas we could stamp out this dread disease. Born of ignorance, fostered by superstition and maintained by power—great is the life of medical folly.

Is infantile paralysis a *new* or an *old* disease? We find it in '33; therefore, it is not new, and civilized humanity always tallied (omitting, if you will, any evolutionary theory). If man had it today he would have had it earlier. How many centuries mankind has had this disease we don't know, but medical history is full of paralysis, including infants, and if the human blood "stickers" had the modern hypothetical buggy ignorances, then they would have known this disease under the same name as we.

Analyze *the conditions of infantile* paralysis and it is an adult and infant disease, and if so, why not call it "anterior poliomyelitis" and omit infantile paralysis? Would it not still be more practical to omit the incongruous, latin, fanatical terms, disregard age, plainly and openly call it paralysis (for I shall henceforth think of and name *the condition*—not age, location, bug or old mare), and thereby generalize and classify it with *the common condition* which we know *exists in all*. Regardless of how much they might commercially desire to classify this as a distant, distinct subject, separate and apart from all other forms, but *truthfully* it is impossible.

Does paralysis, "furnished by a publication committee," con-

fine itself to one locality as we would be led to believe from the paid-for newspaper statements? It is in Davenport, Rock Island, Michigan, California, Louisiana, Florida, New York, Montana, Europe, South Africa, Asia—all cities, states and countries, and is there any reason why it should *not* be so? If it is a *condition* that originates, grows and dies within each person as a unit, then why could not it occur in anybody regardless of where, color, sex or age? Then what would prevent that “condition” from occurring to anybody? If the mechanical *condition* comes *from without* (which we emphatically and logically question), then what is to prevent its transportation from place to place, and it appears that germs do not respect long distances; nations do not frighten them; they have no customs inspection; therefore, travel in multitudes.

Why do we hear so much about it at this particular time, in different spots of our boasted medical degradation? Analyze this. The newspapers sell space. The A. M. A. (American Medical Trust) sees “the crying need of *medical* education” to the masses; they buy this space—fill it with matter pertaining to their endeavors. Medical men hate a patient that asks questions, wants to know the whyfords of things. The A. M. A. hates a public that investigates theories. To appease this subdued restlessness of the great American public is the object of these medical articles in the papers. They accomplish this through the cash-desiring editor. “Copy” is ready for the asking by the local “M. D.” What class of M. D.’s will stir such a crusade? Only those who have no business and want more. Being short of something to keep them out of the devil’s workshop, they become famous by declaring that he has discovered a panic of infantile paralysis in your village and at once the man has more business squirting *poison* into you than he can tend to, for he can find more cases than there are sick people—to begin with. Later on you find cases of infantile paralysis in your city that were there all the time, and you took it for a commonplace granted occurrence; now *you* stampede, but the largest majority of them have been paralyzed for years, although never named until one man started something and you found then that he was the legal boss of the situation.

Why do we have the idea drummed into us of an “epidemic”? I would not believe any political physician’s statistics, under oath, regardless of who the physician was. Any physician who goes after the public health office is a political physician and incidentally a *health* failure in practice, this office makes a commendable cover under which to establish a “rep.”

When they want statistics they manufacture them, regardless of facts, on the spur of the moment, with paper and pencil. Are you to believe statistics compiled that way? I would not believe statistics on the prevalency of smallpox, or “infantile paralysis” as true because the mind of every physician is theoretical—he deals with superstitions and reflex actions, and if he makes mistakes in administering those, he could do no better with how many cases there was. All effects are “grave” (according to where he

puts them), then his statistics would be "grave" also. When we reach a state of mind where we question statistics we have a right to question the prevalency of this disease and the honor of the men behind the invention. We have had, in the last ten years, as much infantile paralysis any year as today. There has not been a time that we have not had cases in our clinic, or in the history of Chiropractic but what we have had them.

Years ago we heard nothing about appendicitis, although we had our appendix. Now, you have the appendix cut. Two years ago a physician declared appendicitis was infectious; there was a germ caused it. This epidemic scare has already died. The popular mind saw that appendicitis meant operations—\$150 and death; they objected, and today it is a has-been. As business fell short in that hobby, the pocketbook thinned; the rent unpaid; grocery and meat bills piled high. As a conclusion, SOMETHING had to take its place, with one doctor and all. It was discussed at their national meetings—what care they for human life—start another scare—"infantile paralysis," someone suggested. They were ready to again bamfoodle the hyperblossus of those who did not think. At this time we are asked to believe figures because they are printed—believe everything that a scheming M. D. tells. We could have a stomach ache and if he said we had infantile paralysis, he could have us quarantined—and remember physicians *find* what they are thinking and searching the hardest for. If we question statistics, then question their statements regarding the prevalency of any disease at any time in any place.

I am not speaking of them as individuals, or in a private capacity, but as a class of professional men.

The same is true with smallpox as appendicitis; there are cases in Davenport (not so named) running at large on your streets, yet you hear nothing about it. Why? At this particular time we have a "Business Men's Commercial Club" which is actively interested in a spasm "boosting Davenport" by dragging in something out of town when if they would encourage *the successful* enterprises here now, their very success would draw a "greater Davenport." Boosting committees believe in booming in the same form that foreign missionaries believe in saving souls. They go to China to convert the heathen and yet I never heard of our Christian gentlemen or ladies trying to convert any Chinese laundry men in Davenport. "Convert" the local Chinese, and then go to China if we have time or money left. I further suggest to this GREATER DAVENPORT committee that we boost *local* enterprise and then if we have time, boost somebody else. It is wrong to treat effects, in you or your business, and doubly so at long range. It is treating effects, with shot-gun prescriptions. Business men (mark the title) know that a quarantine would "knock" Davenport. Business men talk business to physicians—and have prevailed upon them "to keep things quiet." In view of these conditions, whose statistics are we to believe and when are we to believe them?

Last March there was a medical meeting at Iowa City (State Medical University), where 175 physicians (Iowa) congregated to discuss "Infantile Paralysis." They reached the conclusion that "all cases of anterior poliomyelitis should be quarantined. It is an infectious disease—we must protect the people." The conclusion was of their choice—we, the rats in the trap—but who delivered this lecture? One physician of the State Board of Health, and *he had "anterior poliomyelitis" in a chronic form.* He deliberately and feloniously exposed 175 neighborhoods, a la local attending member. And yet, *that* man, in a thunderous voice, *advocated quarantine.* Why didn't *he* do it? Why didn't he lock himself in some house? *He don't believe in his theory,* but he wants physicians to force his idea upon their neighborhoods. Is that disease infectious? I would not give a snap for quarantine, *and neither would the physician.* They do not believe it and show it, yet those physicians are saying "quarantine cases of infantile paralysis."

A rebuttal of this argument would be "Infantile Paralysis is infectious only in the acute form. After it is 4 to 8 weeks old no harm can occur to others. Be careful of germs, for they cause the disease. The disease is caused by germs," then so long as the disease is there, the germs *must be,* for so soon as the germs are idle the disease disappears. If the disease persists then the germs must insist. As long as the disease is present the germs must be, *therefore the man is dangerous as long as he has the disease, for the germs are still there.*

I was invited three weeks ago to see one case to know what a *typical* case was. I said, "Doctor, I am a layman. I would catch the germs—infection. I would return and cast them on my people." "I could not conscientiously do that," he said, "you and I don't believe in that infection—foolishness, come on." I would not go, not because I feared infection, but because there was a trap underneath. I didn't want to be quarantined, at their instigation. (Applause.)

A prominent health official (whose position or title I cannot give), although a man who knew, was asked "what per cent of physicians take any precaution on this question of infantile paralysis?" "Possibly to be conservative, one per cent." What precaution does that one per cent consist of? "One or two things.—we drop a few drops of carbolic acid in a basin of water and wash our hands in it or we put on a kitchen apron and wear it in the house and then when we go out we leave it in the barn." Where do you see protection in that? Does he presume that the diluted carbolic water *on his hands* will kill the germs on his face, clothing or beard?

Does infantile paralysis differ from any other type of paralysis? If we accept definitions as quoted we reach the conclusion that any and every form of infantile paralysis is *any form* of paralysis, and vice versa.

Is there a definition today of this question? Yes, and no. If you can call sweeping definitions, including any and every type of paralysis, a definition of one particular type, then they all define

it. In common classification we speak of hemiplegia, monoplegia, and paraplegia, and by such names we are studying paralysis, but under broad definitions they are all the same. Hemiplegia, paraplegia and monoplegia may all be caused by "infantile paralytic conditions," whatever they are, they don't know. As an after result of the "attack of infantile paralysis" you may retain a common form of lack of use of the muscles of the right or left side and this in common parlance is hemiplegia; or be unable to use the muscles of the legs, and common sense tells us this is paraplegia, and the same is true with special portions—monoplegia. I see no difference between later infantile paralysis or without it. It smatters of apoplexy of thought and diarrhoea of words to explain it otherwise.

If that were the case, we have three hundred cases of paralysis in this clinic daily, which are, according to these definitions, infantile paralysis, and according to local regulations, you should be quarantined. You should be home keeping company with the bugs that created it. They are lonesome.

Later we will see how this can be. After studying the authorities at my command I fail to find *a typical* case enumerated. I find no two men who agree on the common complicated symptoms. Presumably this is because the observation is of differing effects, therefore no criterion can be reached. If they had knowledge of cause, the conditions which caused these contradictions would likewise be found to be a specific *and* general producer, hence could eliminate or add from or to typical cases. This, they are unable to do.

There is a game being played in this man's town—I am playing one side and the physicians on the other. On August the 25th, 1910, the following article appeared in the *Davenport Democrat and Leader*:

"*Infantile paralysis has appeared in Scott county.* This announcement does not mean so much to *Democrat* readers now as it may mean on closer acquaintance with this most terrible scourge that has threatened Iowa since smallpox and cholera were robbed of their terrors.

"Infantile paralysis strikes with little warning. It kills within a few days, or it leaves its victim partially paralyzed, probably for life. It is contagious and should be quarantined. Strangely enough, however, it is not subject to a legal quarantine in Iowa."

Wouldn't that make the shivers creep up and down your backbone? Isn't that enough to make you desire to die quickly and end the worrying possibilities? If that set firmly, wouldn't it make you wish to put a bullet in your brain to end the agony of suspense? You read this, pass it by lightly as you should. It don't sink heavily, for it is all your life is worth to look twice at even the narrow edge.

How was it published? At the financial instigation of a trust who had a score to nurse and propagate at 10 cents per.

What was the next move? The physicians called a meeting, went to the council and had passed a local ordinance to the effect

that every case of infantile paralysis in the city had to be quarantined—and all because I said that some 25 cases were in our clinics. Physicians would rather see an infantile paralysis patient die the “regular” route than to get well from an “irregular” one. They did not want 25 cases to get well here. Each *P. S. C.* success was their failure.

The article is as follows:

“Mayor Mueller has issued a call for a special meeting of the city council to be held Friday evening, at which an ordinance will be considered *enlarging the powers of the health officers here*, particularly with regard to quarantine and fumigation. The move is called for by the existence in the city of at least five cases of infantile paralysis, and the duty that rests upon the people here and their official representatives to prevent a spread of the disease.”

What was my next move? Call the city health inspector to my office. “What is infantile paralysis?” He did not know, or did not know anybody that did. “No,” said he, “that is the trouble. We are trying to find somebody that *does* know something about this disease.” Do you know a case when you see it? “Not definitely.” How do you know what kind of a report to make when you are sent out on a case, if you have no criterion, standard or way of telling? “That is up to your judgment.” If *you* don’t know how to make out a report and it is up to *your* judgment, how am I to know what kind of a report to make on our cases to fulfill the requirements of this ordinance? You tell us, through process of law, that we must do something without telling us what, and fine us if we don’t. A great and consistent ruling, that. If all legislation was of that character I could not blame socialism for growing. “I don’t know. It is up to your judgment,” also—as it has been up to mine. And to date, we have not reported a case of paralysis. The trick was turned, the trap caught themselves sooner and in a wiser way than expected. What was my next move? None. They established no foundation for themselves or others, consequently they have no further moves *to* make. The game is stalled. Today we have more (what is called) “infantile paralytic” cases in the clinic than ever before, not because of a greater prevalency, but because of the great effect of results advertised.

The following article appeared as a news item, exactly as the medical trust “news” appears, *paid for*. It is part of the Chiropractor’s educational campaign:

“For all of the fact that the most eminent physicians in the world claim they are baffled with the new disease, as they call it, infantile paralysis, and cannot discover the germ, it and we are not even able to form an opinion on this disease, although they have been successfully adjusted at *The Palmer School of Chiropractic*. No one is asked to believe mere statements, but facts submitted, which prove conclusively that this science is doing what the greatest physicians and medical men of the day are unable to do. The statement below is supplied by Dr. Palmer himself. (Signed) J. Rutherford.

"The paramount issue before the minds of the people, as regards their health, is 'am I safe from the scourge that is infesting the country?' They look with all hope to the medical profession. What's the answer?"

The Milwaukee Sentinel (Friday, Nov. 11) says: "That infantile paralysis, which has for months scourged the country, and from which nearly 400 babies in Minnesota alone have died, is as incurable as leprosy and that physicians are unable to diagnose the disease until it is too late, are statements made by Dr. H. E. Robertson, of the University of Minnesota here, which are undisputed by hundreds of visiting surgeons who heard his lecture before the Chicago Neurological Society." (Dr. Robertson is Associate Professor of Pathology at the above institution.)

"We are up against it and are not even able to form an opinion as to whether the scourge which was so deadly last year will not even be more deadly in the summer to come. We have not been able to cultivate the germs in laboratories. We cannot even diagnose the disease because the first dependable symptom is the paralysis itself."

"*The Chicago Record-Herald*, of the same date, goes into the lecture more thoroughly. *The Chicago Daily Tribune* gives much similar data. An authentic article in *Collier's* (Nov. 5) says, on page 24:

"The disease has recently been shown to be caused by a living organism so small that it can pass through the finest bacterial filter. Experiments on monkeys, in the Rockefeller institute, under the direction of Dr. Flexner, have succeeded in isolating the germ, WHICH IS SO SMALL THAT IT IS DOUBTFUL IF BY ANY DEVICE IT HAS BEEN SEEN."

"The medical profession is, today, absolutely helpless to know the cause of this disease—they are helpless to know what to do to save these lives. Within the past three months *The Palmer School of Chiropractic* has had many of these cases in its clinic. They are authentic, so recorded by physicians who claim to know its characteristics. They have been pronounced what they are called. Two authentic cases have now been pronounced well, able again to use their muscles—helpless before, now they are well.

"We herewith append the record of two cases:

Leota Rohlfs.

"Mrs. Treves Rohlfs and three children of Minden, Iowa, returned last Wednesday after having been in *The P. S. C.* clinics two months. Mrs. Rohlfs' daughter, Leota, aged 18 months, had a thoroughly well defined case of infantile paralysis. The case had been so pronounced by the family physician, hence there could have been no question as to the accuracy of the known condition. In signing the patient's report Mrs. Rohlfs, the mother of Leota, said: 'My daughter is well and I am only too glad to give permission to use my name to that effect.' Mrs. Rohlfs left all smiles and glad to think that there was a science which could do so much for these cases.

"This case is similar to many others which are now in progress at various stages of health, according to the length of time they have been in the clinics. *The P. S. C.* clinics have many such cases which heretofore scientists have been unable to cope with. Results were noticed after the third adjustment in the case of the Rohlf's child.

"Mrs. Rohlf's said upon leaving: 'I am glad to give my address and any one desiring to write me may do so.' *The P. S. C.* urgently requests that any one who has children suffering with this disease write to this mother. The entire *P. S. C.* clinic service for this case cost \$8. Hardly seems possible, yet true.

Van Nice Child.

"A case of infantile paralysis, announced by a physician of Garrison, Iowa, was discharged from the clinic Saturday, entirely well, having received, all told, six adjustments. When the case was accepted the child was unable to walk. Three adjustments enabled the little patient to walk up steps alone. The case was the daughter of Mrs. Glen Nice, of Vinton, Iowa, aged two years. Mrs. Van Nice expressed great delight and gave full permission for the publication of the details.

"True? You Ask—500 Watched Them."

"Are these cases true? Hardly seems so perhaps, but nevertheless over 500 people who attended the clinics daily while these cases were here have watched their progress. They know they were carried in arms and walked home well. Can it be true that in Davenport, Iowa, has been discovered the method which will give to the world the thing the medical profession has been (?) and is (?) grasping for? If these cases are not true; if these names are fictitious, *The P. S. C.* would like to see the expose in this paper. And what is more, they will pay for any and all such space so to do. *IS THIS FAIR?*

"Were it not true, do you suppose this school could afford to risk its already world-famous reputation in having them proven incorrect? Any investigation will be more than welcomed. What mother or father is there that would not be glad to tell the news to the world? If such work could be done by the medical profession in such a ridiculously short time, would it not be in all medical magazines?

"But, you ask, why does not Dr. Palmer edit an article in these magazines and proclaim to the world what he has. Could he get an audience? Would they welcome his success? We naturally conclude they would.

"Let us hope that any one interested will call at *The Palmer School* clinics and see other cases getting well of the same disease.

"Rutherford Interviews."

"In an interview, Dr. Brown (the medical physician in charge of the clinics) was asked, 'Have you cases in this clinic at this time?' To this he answered: We now have about 25 cases of this kind in persons of various ages, from infant in arms to adults.

We have them from the acute to the chronic stages and all are improving according to the length of time they have been here. We intend to send all cases home well. People are coming from all over the country, having heard of our success. This will be a mecca for this disease alone if our good work keeps being spread. We have had several physicians visit us lately who were on their way to Chicago to attend the surgical convention. They assumed a layman's name, but when we proved that our work was reliable, creditable and successful, they told us frankly who they were. We understand our work was mentioned during the recent discussion which is referred to in the article I have shown you.

"We are more glad to welcome an investigation by scientists or those who are not sick."—THE DAILY TIMES, Nov. 16, 1910.

We have said the medical profession *should be* glad to investigate. Did they? What have we shown they *did*? Passed an ordinance *to try and stop it* because *an interloper* was doing something all science could not accomplish.

We have heard briefly what the books say on this question, let us see briefly what more newspapers say.

The Davenport Democrat of November 15th contains an article which is quoted in part as follows:

"The medical profession of the world is still handicapped before the scourge of infantile paralysis, according to a statement made before the Chicago Neurological Society.

"The disease has been epidemic throughout the civilized world for five years. It was general in the United States during the year. The northern part of the country is enjoying a respite from its attacks during the cold weather, but its onset again is expected with the spring. (You would think they were describing the onslaughts of Napoleon's army upon Russia by the manner of description.)

"We are up against it," said Dr. H. E. Robertson. "We have not been able to cultivate the germs in laboratories. We cannot learn anything from animals. *We cannot even diagnose the disease*, because the first certain symptom is the paralysis of the patient.

"Dr. Robertson is associate professor of pathology in the University of Minnesota, where a severe epidemic of poliomyelitis or infantile paralysis has prevailed for two years. The research laboratories of the state university *have produced no remedy*. The meeting of the Neurological Society was a part of the program of the surgeon's clinical congress.

"The disease attacks the strongest and most active children," said Dr. Robertson. "It is not confined to infants. Many victims are adults. The high fatality is caused by reaching the acute stage in three or four days. Up to that time the symptoms might indicate any infectious malady. There are no definite symptoms, and the first warning the practitioner has is the paralysis of his patient.

"The fatality is 20 per cent, according to Dr. Robertson. There were 900 cases in Minnesota last summer. No section of the coun-

try was spared. Many cases now exist in Illinois." (They always have existed and methinks always will, so long as guesswork has full sway.)

"The disease depends upon a definite coccus." It has not been caught because "it is so minute as not to be distinguishable under a microscope." It further states that the disease attacks the spinal glands and that a portion of the cord is destroyed forever and that no repair is possible. It asserts that a serum may avert the disease and that "when the serum is found it will be possible to avert the disease before paralysis takes place."

In *The Chicago Daily Tribune*, under date of November 11, we find a long article in which it is further stated that there are something like 200 physicians and surgeons who were assembled to attend the surgical clinic in Chicago at that time and that they did not in any way dispute his contentions.

Quoting from *Collier's*, under date of November 5, appears an article by Hutchins Hapgood in which he says, speaking of the Flexner Institute, endowed with the Rockefeller millions:

"The disease has recently been shown to be caused by a living organism so small that it can pass through the finest bacterial filter. Experiments on monkeys, in the Rockefeller Institute, under the direction of Dr. Flexner, has succeeded in isolating the germ, which is so small that it is doubtful if by any device it has been seen.

"As yet, however, the discovery has not affected the direct treatment of the disease, since the preparation of a serum anti-data sufficiently strong to overcome the virus has not yet been made. What these experiments on monkeys have surely accomplished, however, is to establish beyond doubt the infectious and contagious nature of the disease; and when this fact is sufficiently realized by the public, the disease will be greatly lessened in extent and possibly stamped out by quarantine and generally preventive measures."

Human nature is inconsistent; we fight the thing we need most; we want to grow and won't let ourselves. There is a class of people who dismiss "the evolution question" and here is a scientific institute, in the face of that fact, that will experiment with monkeys, arrive at a conclusion (?) and transplant it over to reason that the same thing that did occur in the monkey will occur in the human;—"we take serum from the monkeys; inject it into the human, and bring about the same condition in each." Inconsistence, thy name is theology vs. science.

The Minneapolis Journal, under date of January 20, 1908, in their morning edition, contains a long article of a patient who became as a baby after she had the paralysis.

This article states "that the germ of this disease has eventually been found," but this article was written two years ago, and, of course, later articles contradict it. The article is as follows:

"The discovery of a germ which probably causes infantile paralysis was announced yesterday at a special meeting of the College of Physicians held here to discuss that disease.

"Dr. Allan J. Smith, dean of the medical department of the University of Pennsylvania and director of the school of tropical diseases, recently founded in that institution, declared that in the blood of sufferers from the disease had been found a protozoa, or a low form of animal life, which *he thinks may* prove to be the germ which causes the disease. It resembles the germ which causes sleeping sickness and in his opinion is carried from one victim to another by insects.

"Dr. Chas. K. Mills and other well known physicians corroborated Mr. Smith in his opinion."

We see through the logic of books, newspapers and physicians a series of well grounded, fearful doubts that have not been settled. They have never been able to diagnose infantile paralysis, and there we stand—knowing absolutely nothing definite from a medical point of view.

Analyze this chiropractically. What are the symptoms? *First, fever*; second, *paralysis*, with the contributing and exhaustive combination of symptoms. What comes before the fever? *Subluxation*. Through these articles and quotations is seen the fundamental that *fever is the first symptom*—some authors even state this is induced *by traumata*. And what comes before subluxation? *A concussion of forces*. Your child is in apparent good health (and that don't necessarily mean that the child must fall from the top of Washington's monument). It may be a sudden twisting or bending of the child's back or some such slight occurrence which caused the subluxation. After an *acute* subluxation is *acute* fever. Following cause is effect; following this subluxation is *a pressure on the spinal cord*—and what does any *acute local* fever do to tissue? What does it do in a boil? There is always tissue swelling in a fever. Your person is not lighter in weight when the chill or fever period is on, but in point of size the body is larger in the fever period. Fever swells structure in one or more of the osseomeres of the spine (usually one), then exists excessive heat *in* the meninges of the cord of that immediate region surrounding the spinal cord inside of the vertebræ—the fever swells, and enlarged tissue compresses the spinal cord into smaller space—what's the result to the function of the cord?

Supposing a man is in an accident and gets a fracture or dislocation of the 4th dorsal (not such as would kill him, but greater than a subluxation), what would be the result? Paralyzed from 4th dorsal down. Presuming that the accident was a fall from the second story of a building, he struck a brick; produced a fracture; the fracture decreased the lumen of the spinal foramen, this produced pressure upon the spinal cord; cut off the flow of "nerve force" from getting below it in the same quantity as exists above, *and the immediate result is paralysis*.

We get an identical *condition* in infantile paralysis with the exception that, instead of it being a fracture-pressure we have inflammatory-swelling-pressure induced by a traumatic-vertebral-subluxation pressure upon the spinal cord. As the fever advances and

subsides so does the degree of pressure upon the cord caused by swelling tissue advance or subside. The average fever period approximates 21 days, meanwhile the "lesion in the cord has practically become a cicatrix." The same *condition* exists when we have a boil upon the nape of the neck—it leaves a mass of "cicatrix" tissue. This condition inside of the spinal or neural canal means permanent decreased size and permanent pressure unless the subluxation is removed. A subluxation can tear down in one hour what it will take ten years to build under physician's treatment. In the analysis we have introduced first, a concussion of forces; second, a subluxation; third, a decrease of the diametrical and circumferential measurements of the spinal canal; fourth, a reduction of the size of the spinal cord; fifth, the carrying capacity of the spinal cord, or portions thereof have been diminished; sixth, the cause is lack of current; seventh, the effect displays lack of current; eighth, medically named infantile paralysis; ninth, Chiropractically named incoördination between the 100 per cent of muscular function generated in the brain and a minus quantity expressed at muscles—the leak being induced by the vertebral pressure upon the path of the conducting nerves.

The same combination of conditions always brings the same result. Get the same kind of a subluxation in an adult or youth and you have the same *condition*.

If the analysis be true with facts and consistent with nature, what can be done? The physician sees fever, his thermometer feels it. His eyes study the immobility of members, his mind reasons about a bug from some distant land—he diagnoses *this* data "acute anterior poliomyelitis." What does he do? What can he do? *Look for the bug.* This he proceeds to do in a systematic manner, but to date their hide-and-seek game has not found Mr. Bug. They are still searching; meanwhile they "quarantine the house" for fear the bug will leave the patient's body and let him get well.

If I throw refuse into the alley I might well figure that dogs or rats will get it. It is a natural, logical conclusion that scavengers will eat it. *Where* do they look for the germ of infantile paralysis? In the mouth, and if they don't get it there they go to the faeces. If they cannot get it there they try the stomach. So the game goes on. Mr. Bug's habitat has not been found.

An apparently important question is, "Is this disease contagious or infectious?" "Apparently," for only *theorists* deal with hyperblossitis, but those who deal with facts, established and proven, have no time for a mere statement not lived up to by the originators. We go over Davenport (exclusive of *The P. S. C.* clinics) (50,000) and are surprised to find *ten* cases of infantile paralysis. We are notified that "an epidemic has at last invaded our city." How many headaches exist in our city in the same space of time? Several hundred or thousand. Why not say "the army of headache germs finally stormed the walls; battered the peace of our homes and finally threw shot and shell into our brain until many of our citizens are well nigh laid up? Their nerves are shat-

tered and torn with distraction—the city is in a state of siege—the army of the enemy is upon us—we are surrounded—defeat is inevitable.” Why not offer some such argument? How many men working yesterday produced lumbago and are not reporting for duty today? Why not argue “lumbago” is catching? Why not say “sneezing is infectious”? It would be unreasonable for a city of 5,000, up to millions, to exist without a certain percentage getting down with more or less of one form of disease, therefore, expect them. It has been that way for centuries and will continue. We have had infantile paralysis existing under those conditions for centuries and will continue to have them. *There is no epidemic* anywhere only as it exists in the mind of local meddling financial medical schemers.

Here exists infantile paralysis in Mr. A. today. I am healthy. Tomorrow I have the same disease. I am told that “infantile paralysis is infectious,” i. e., catching. Infantile paralysis is a disease—the disease is catching. This disease was *caused* by a subluxation. As cause must precede effect, therefore subluxations are catching before the disease. If true that all diseases are because of a cause, then if the cause is catching, there is no need of catching the disease, for the cause will produce it. If we have caught the cause, that is enough to produce the disease. If the subluxation is catching, then the cause of that must also be catching, i. e., the concussion of forces is contagious. That being true, accidents are contagious. If Mr. B. fell on the ice, be careful, accidents are catching.

The line of logic of the germ going to the other man is not thought of, it is *the disease* which is carried from one to the other. Is this statement far-fetched? “Infantile paralysis is infectious—all cases of anterior poliomyelitis should be quarantined.” If this statement is not rightly put then why put it as it is? If the germ causes the disease then why not say, in accordance with science (*if it is scientific*), “*The microbe* that causes infantile paralysis is infectious—all infantile paralytic *germs* must be quarantined.” I believe in quarantining *the cause* in preference to an effect. Difficulty would be met with in trying to imprison the germ that is so small that it goes through the finest microscopic filter made, but even finer filters could be invented—“the medical *science*” could scheme *some* method to keep at least the ghost of the germ in the house where he has done mischief.

To the Chiropractor disease is the lack or excess of force, mental impulses are interfered with and prevented from reaching their destination. How can that *condition* be transported from his body to mine through the medium of the germ? There is no physician who can show *any process* for his work. Ask him, he will tell you his theory, *but give you no process*. Ask the man, who proposes to contract your building, under *what process* he will build and he will give it. Ask the machinist *the process* through which he will make you an article and he will outline it—go to any commercial enterprise and every article manufactured goes

through *a process*. Automobiles are manufactured, assembled, sold, used *under process*. Metals are mined, watches made, vegetables grow—through *a process*. Turn to this colossal fraud of today—theoretical medicine, and its guessing practice—what is *its* process? It has none that will stand any test to any man, woman or child that thinks two logical thoughts. If any and every business man reasoned regarding what is done with himself *in the same process he reasons with his business*, he would never take *another* dose of medicine. If every woman used the same processive thought regarding operations as in managing her home, she would never have another operation. But men and women *do not* think—they pay the physician to do that for them.

Did you ever consider the essentiality of *the process* necessary in solving the “mysterious phenomena of this disease”? What I mean *by process* is a step by step analysis from the state of health to the state of disease, introducing the germ at some period of time and showing his progress, step by step, changing the healthy condition to one of the disease—each step in logical sequence and so connected that one blends into the other—thus there could be no jumps in the natural process. This has not nor cannot be produced, and until it is it is only necessary to make the statement *that germs do not cause disease*. Until they have proven *that they do*, we have no right to gainsay anything, for as yet they have not proven their case, therefore we have nothing to disprove. As they first made the statement that germs *do* cause disease, the burden of proof rests upon them. People have taken it for granted because “their physician said so.” The same as a minister can say “Jonah swallowed the whale,” and people would believe it.

Who says these diseases *are* contagious? Physicians and those who *believe* in them. Why do physicians take that stand? Because it is the only argument they can use to cover superstitions and myths and only quite such superstitions as they would follow. The argument of the 20th century is the germ theory of disease. The argument of the 19th, that blood caused disease. The previous argument was that air, contained in the tubes was not pure (before Harvey discovered blood, “the arteries and veins carried air to all parts of the body—this air was *the life* of the body”). What they had before that I don’t know. Medical science lives steadily by jerks. When “the germ *theory*” (notice how *they* speak of it?) is proven to be but another “theory.” Next! It would be almost too startling to think they would utilize truth, but *their own* inertia will not determine what they will use—the public mind is rising to wrath and I prophesy that the next “theory” will be a *fact-Chiropractic*—for the populace are demanding it. Physicians won’t get an opportunity to offer further arguments after this is down and out, because the osteopaths, Chiropractors, mental therapists, hydrotherapists, and electrotherapists, etc., are laying a *new* foundation; the old will disappear and the new will come in, and with that will go down and out *the physicians*.

In answer to "infantile paralysis being an infectious or contagious disease," we have the Chiropractors' logic. Compare the two. Say that the Chiropractic *philosophy and science* is wrong. What do *results* tell? Granting that there are two theories—if one *proves a theory* and the other *does not* then one ceases as theory, it becomes a fact. Grant that the Chiropractor's idea is a "theory" and the physician's idea is a fact—*what do results show?* Every day the physician shakes his head in helplessness in the face of many diseases. Every day he shows his inability with "infantile paralysis," but the Chiropractor knows there is health for the child or adult and that this is no case to fail on, there is where science wins. As the Chiropractic idea becomes a fact, theory relegates itself to the pages of history as another unsuccessful display of ignorance. This is so in Chiropractic if *results* are the final conclusion.

Physicians do not believe in "the contagion *theory*," but it is necessary, from the standpoint of their practice, to raise the question of *fear* in your mind as to the danger generated by the closeness of the case, but if these diseases *were* contagious we have sufficient number in this clinic, mingling with you, to *cause* many cases through direct contact. We have sat beside them, breathed where they breathed and exhaled, we drank of the cup of which they drank. You have mixed daily, and you *have not* "caught it." You have not caught the germ nor has the germ caught you. I have watched this clinic closely and there has never been a second case of infantile paralysis caused by a first case in this clinic. Is it "*catching?*" If so, why have *we caught it?* You are all *now* breathing the germs of those cases that were here this evening. That fact is sufficiently strong to cause you to change your opinions regarding its being an infectious disease, but how many of you will? Does evidence *form your conclusions*, or that which has been drilled into you for years, regardless of whether right or wrong?

Physicians state they cannot "*diagnose*" this case, inasmuch as the paralysis itself is the first symptom. He cannot tell what this disease is until it *is* a disease. He sees something coming; he cannot tell whether an engine, locomotive or a man on horseback until it runs over him. Can a physician *treat* a disease without diagnosing it to *know* what medicine to give. As this case is coming on, for a period of two or three days or three hours, the physician stands by, holds his hands; does nothing because he don't know what it is; therefore, don't know what to prescribe.

What could the Chiropractors have done? What would *you* do if called to a case where the child had an excessive heat? Locate the "hot box" and adjust it—and the *future* "fever" is gone before it came. Simplicity personified. What would you do if the mother said, "My boy is coming down with infantile paralysis"? "I can have nothing to do with your case, I must get out, the germs will get me, I must run." Suppose you were told "there is excessive heat in this body." Would you refuse to adjust the case, thinking

it might *turn out to be* "infantile paralysis"—would you fear its future development? Or would you *adjust* the subluxation, not knowing what its symptoms might turn to any more than the physicians? He can do nothing until the case *is* developed; you can adjust the second after the subluxation is produced whether one or a hundred symptoms have developed. Is not this a step in the right direction? You don't need to know whether "infantile paralysis" or not; whether it is coming to that or not. Take this case as you find it, palpate the spine, find the subluxation, adjust it, and if your work is accurately done you will never know what it might have been.

This raises the question, can a Chiropractor adjust without a diagnosis? Certainly. Can he adjust without an analysis? No. What determines his analysis? Palpating the subluxation. When was the subluxation produced? Before the effect, because there is a logical period of time between the concussion of forces and the paralysis—this time varies as quotations show. Take the case the first hour; the first minute; locate your subluxation; adjust it, and the case will not get beyond an acute fever.

The greatest confusion exists, in the minds of physicians, in the varying possibilities that lie wrapped in the different complexities possible under a classification of this disease. Supposing a given subluxation occurred at a level with the 4th cervical, the inflammation occurs also at that place and the consequent constriction occurs there—where would the infantile paralysis be? Everything below that. This holds good at any portion of the spine. If the subluxation and acute meningeal inflammation was at the 12th dorsal all paralysis would be at a level inferior to that. It can be seen that 24 degrees of paralysis are possible because the level varies to the same extent. The height of the level, necessarily affects additional or subtractive quantities of matter. The higher the subluxation the more organs and viscera involved and vice versa. The type of "infantile paralysis" that had its cause in a subluxation in a 4th dorsal, would be greater and more complexed than if it were a form following a subluxation at the 4th lumbar. To a Chiropractor paying little attention to symptoms, all jargonity of complications do not confuse him.

A vertebral subluxation, in this manifested form of symptomatology, produces pressure upon the spinal cord more than "spinal nerves," although both can be together, but to simplify *the type* we are holding to one form. The spinal cord is composed of bundles of nerves, each having its portion of the cord. Each portion is of a different functional characteristic, hence the function or functions involved depends largely upon *which portion of the spinal cord* is under pressure induced by this subluxation.

Consider degree of spinal cord pressure. The more pressure, the greater the obstruction, the greater the area involved at periphery.

The analysis considers: *First*, the height of pressure; *second*, the *location* of spinal cord pressure; *third*, the *area* under pressure;

fourth, the degree of pressure upon the area considered with location. Each modifies any consideration. Keep clearly these features, even though we do not know the exact number of localities under pressure, and you will have clearly all the necessities to logically elucidate one problem that is worrying one entire profession and enlightening another.

The key-note of this analysis is LOCATION and DEGREE.

Can't you see the very practical nature of Chiropractic?

Medical books give any number of permanent symptoms which last throughout the life of the individual. We ask two questions. First, *why* are there "permanent or chronic symptoms" under medical treatment? Because they have never adjusted *the cause*. Second, "*what* are the permanent symptoms under Chiropractic adjustments?" None. If he does his work carefully (and carefully means correctly) there will be none. The person will not only get back to where he was before this subluxation was made, but he will be better than before. When you make your analysis you will not only find *one acute* subluxation, but you will find several chronic which have been for years. In adjusting one you adjust all.

In your analysis of functions and structures we find one involved—muscles, and two functions—motoricity and caloricity. The successive order is: First, subluxation; second, caloricity; third, motoricity. It is possible to have them in this order: First, subluxation; second, motoricity—in such an event the condition would be "paralysis" minus the "infantile."

Did you ever hear of a physician "curing" these diseases? I never have and you never will. This case, after being given up in despair, hears of Chiropractic. He goes to *The P. S. C.* clinics that have been able to reach a solution of this "malady." Ultimately physicians and their failures wend their way to the man who throws symptoms to the wind—that man in his school house at the top of Brady hill. (Applause.)

Has this idea been tested? Has Chiropractic done the things I have said? Yes. I was happy last Saturday. A little girl was brought in last month in her mother's arms. She could not walk. Both legs like so much rubber. The mother brought the child to see whether anything could be done. The child took six adjustments. Saturday (a week later) I saw the little tot running. I saw the mother with tears in her eyes, saying good-bye to our Dr. Brown. It was also a case of "infantile paralysis." So pronounced by physicians and experts. Was not this mother happy? And what did it? Just an adjustment of one or more vertebræ. What did the physician, the man with the spectacles, with the microscopic mind do; what did he say? "No hope for the child; she will be that way all her life." But the mother brought the child to a man who cannot grammatically phrase sentences; who does not use English as it should be, but the man has sufficient thought to analyze a simple disease to get the child well, and what more did that mother want? The great come to the humble; the intelligent to the mediocre; the university reaches *up* to the layman *for fact*—at least

such has been true with medicine. Truth is simple, facts are stubborn things not born with silver spoons. Simplicity is open for research and study alike to all—whether with or without education. Health is a common condition; all feel or need it; its absence is a state where all can think of the why and how to restore it.

Child or adult.

Health.

Carelessness.

Accidental concussion of forces.

Subluxation.

Decreased spinal lumen.

Pressure upon spinal cord.

Functions involved: Lack of motor; excess of caloric.

Equations: M minus and C plus.

Swelling of the spinal meninges.

Greater pressure on cord.

"Feverish paralysis."

"Infantile paralysis."

Medical.

Observation of fevers—Effects.

Paralysis.

Treatment of fever, by reduction; of paralysis, by stimulation.

Fever goes down after "it has run its course."

Results—paralysis exists, but gradually improves as swelling pressure decreases.

Patient paralyzed for years.

Why are the medical men so ignorant of what infantile paralysis is? No two people are alike; no two people carry their bodies the same. As the physician looks at his patient he sees not only these but a combination of others. He sees lung, bowel, head, heart, and other troubles, and this combination of 15 or 20 symptoms are never alike in two people or two children. He simplifies by adding complexitive symptoms. He looks upon a stomach trouble as a bowel symptom, because they may be similar and he has no understanding of the principle of elimination. The Chiropractor resolves to specific types. This *seems* simple, and simple it is. The first thing he did in the study of man was to resolve his anatomy to bones, muscles, ligaments, etc., and resolve functions into an equivalent analysis. Man had nine primary functions. That is something histology, microscopy, bacteriology, or any other ology, has not solved. Consequently, he is not able to resolve its pathology or symptomatology into functions.

Pathology is anatomy gone wrong. Symptomatology is physiology gone wrong. Pathology is the observation of diseased anatomy. When you observe a cancer you are studying pathology, because you are studying tissue in a diseased condition. Symptomatology is the description *the patient gives* of how he feels—and physiology is the study of functions in the individual.

Physiologists have not classified functions, therefore it would be impossible for them to comprehend symptomatology. That is

why the Chiropractor with his process of analysis, which is more a process of elimination than subdivision, is able to take a case like "infantile paralysis" and analyze it to its elements, because he analyzes not only matter but functions.

Carry this farther.

CHIROPRACTIC

Knowledge of subluxation. Cause.

Observation of spine.

Analysis of subluxations.

Palpation of subluxations.

Location of specific subluxation.

Intentional educational concussion of forces.

Adjustment of specific subluxation.

Increasing size of spinal lumen.

Lack of pressure upon spinal cord.

Restoration of currents by reduction of caloricity by increase of motoricity.

Results, fever subsides; motion returns.

Patient gains in proportion as adjustment releases pressure.

Health is returned better than before attack was noticed.

Which is better—knowledge of effect, or cause?

The more you have the more simple this mysterious and preposterous disease becomes. Why magnify it? Why put in outlandish terms a simple thing like this? Here we show the different steps; what the medical man and Chiropractor does—both *the processes* are there. It is hardly sufficient to say, "Here is a child, it is sick; it has fever; this is infantile paralysis; the bug did it." I don't like jerky reasoning—or jumpy conclusions.

What subluxation would you adjust for infantile paralysis?

As the paralysis might be in a left or right arm, or a left or right leg, the shoulders, hips, or in various sets of muscles, then the subluxation is dependent upon what myomeres are involved. If you have paralysis of the legs and everything is normal above the waist line we would not look for a subluxation at the heart place, and vice versa; but if everything is paralyzed below the heart line in an "infantile paralytic case," the subluxation would be at H. P. The two functions involved can be induced by a subluxation of any vertebra in the spine, which produces pressure in the way mentioned and thereby produces "infantile paralysis" of everything beneath it.

In the last analysis this disease resolves itself into one of the most simple, and yet it is dumbfounding the profession, regardless of the scare-head frightful pictures we have it drawn to be.

Hundreds of medical colleges and universities, having behind them most "brilliant" men; having the masterful minds we hear so much of. There is in New York a microbe colony endowed with millions, as if money could decipher man, and all this mass of medical flesh have built is a legal wall hedging themselves so nobody can do anything for these paralytic cases that they cannot.

After years of study, investigation and experimentation their ideas and net results can be cast into one melting pot, one crucible and what have you? *Failure*. It all comes out dross. Then, out in Iowa, the land where "the Indians" are supposed "to be scalping the ne'er-do-wells and the buffalos run wild on the prairies," there is a one-story frame shanty with a man behind it who has no education, and who has none of the world's college breeding; who doesn't worry himself gray over books; who don't study medicine—nor the death that goes with it. (Laughter.) *But* he did study *humanity and life* and the health that was there when the two were together. (Applause.) He succeeded in getting them together in more equal states. (Applause.)

There has been in Chicago last week and this week the greatest surgical clinic held in America. During these weeks we had ten surgeons visit this work. One last Sunday said: "I came out of curiosity. You did not know who I was yesterday—today I tell you frankly. I am interested and am coming back to learn it. I didn't care about seeing you yesterday, but today can you give me two hours?" I make this statement by way of showing that *results* demand the attention of those who want the best and must get it. You can thrash it up and down; harangue it in and out; look at it from all sides and yet there is *one* conclusion you reach—the man with the goods is the man on top, whether he has or has not the education; whether he has or has not a supposed "ethical study," etc. We don't have far to go to be above physicians because they are near the bottom.

Health is life; life is current and current is cycles. They work *together* to fulfill their function. The difference between the dead and the live man is—one has the current and the other has not. The two together equals health, providing the quantities are normal. In paralysis we have a lack of current going through man or matter, therefore, the matter is "dead" to the extent of current it lacks. In infantile paralysis open the channels so current can get through. When the current acts you have life; therefore, health; and infantile paralysis ceases to be; it becomes infantile motor action. That is all your child needs.

When everybody says a thing is right, that is 99 per cent reason why it is wrong. The mass of people follow a groove, from birth till death. Live in a rut and you acknowledge your inferiority and are that much in a grave, the difference being depth, width, and length. I give that by way of reaching this conclusion. Don't believe in statistics as physicians hand them to you. In St. Louis a short time ago we had a case. Wondracek vs. State of Missouri (not Missouri vs. Wondracek, because the State of Missouri was worrying about Wondracek and Wondracek was not worrying about Missouri).

The physician was the city health inspector. Talking with him on statistics, he said: "We have 142 cases of scarlet fever and 34 cases of smallpox in the city at present." How many cases of gonorrhœa have you? "I don't know." Isn't that as bad as scar-

let fever and smallpox? "It is worse." Why don't you quarantine them? What do you do to prevent *its* spread? "Nothing." Why don't you? "It is a *social* disease." (Laughter.) How do you know how many cases of scarlet fever you have? "Those are on record in the office. The doctors *are supposed* to register those cases." And what per cent of the doctors register every case? "About five per cent." What do the ninety-five per cent do? "Let them stay in the home, I presume." Why don't you arouse them? "That would not be to our interest." What do you mean by "*our* interest"? "It is not the best political policy."

I saw something in the paper the other day about an epidemic of smallpox in this city. He said, "Yes, we keep them roused up." Meanwhile, that vaccine virus won't sell unless the people are scared. "Whenever things get too quiet we scare them."

He denied that there was an epidemic with "What we tell the newspapers and what is a fact are different things."

When against that condition in many towns, we get disgusted with the presumed-to-be loveliness of the high morals of the practitioners of medicine and particularly condemn those who hunger for public office and bleed people when they get in. All practitioners, thank posterity, are not of this type, but those that are in, set the pace for those outside, and if they don't toe the scratch they wish they had.

You say I am harsh because I place all in the same class; all of which I am willing to admit if you will bring me proof to the contrary.

"Infantile paralysis" is supposed to be a disease for which there is no remedy. Chiropractors are the persons who offer hope of the individual getting well. I have a newspaper clipping of a Chiropractor in Minnesota. The newspaper states:

"The disease known as infantile paralysis which has caused the death of a large number of children, especially in the large cities, seems to have proven a puzzle to the physicians who have been unable to combat the disease successfully, and have come to regard a severe attack of this disease as fatal; therefore, when a cure is effected it is worthy of note, even though the practitioner is of a new school. We learn that Miss Sophie Enestvedt, of Sacred Heart, whose card as a Doctor of Chiropractic appears elsewhere in this paper was recently called to see a case which had been given up by the physician in charge, who had said to the parents in answer to the question if there was nothing to be done. 'No, there is no case on record where one like that has been cured.' Miss Enestvedt said to the parents that she had never had a case like it before, but was satisfied that it could be reached by her method, and went to work; and for three weeks adjusted the patient every day, and on the 20th of November the little girl walked, a cure being effected, and we are told that Miss Enestvedt also had another case in hand in which a cure of the same disease is nearly complete. The local paper seems to have been very careful in regard to making any particular mention of a cure effected by a fol-

lower of the new school of practice, but it seems to us that the fact that a cure was effected in a case which had baffled one of the regular school is worthy of note. Chiropractic adjustment is regarded by those of the old school as a delusion, but if it delivers the goods where others fail we see no reason why due credit should not be given, and we congratulate Miss Enestvedt on her success in what had been pronounced as a hopeless case."

This is a decided stand for newspapers to take. It shows the spirit of the masses. Don't hesitate to take these cases wherever you can; begin your adjustment and the case will get well. Infantile paralysis is not a thing to be dreaded, it is to be accepted with no more of a feeling of fear than you would towards anything else.

STONES

Our subject is "Stones." I had an object in so naming it. In studying physiology, anatomy, biology, psychology or any ology, there is a similarity between things organic and inorganic, mineral and vegetable. "Stones" convey an idea of earth or mineral, organically and concretely hard, which may be internal or external, to a given location. It purports a solidification of animal, vegetable or mineral matter.

There are conditions named causes which are not *causes*. Creation is the result of intellectual forces put into execution. Trees express an expansive force from the seed. Man represents a similar creative seed. Man's tissues (including bone) are *comparatively* soft, sufficiently so that Innate Intelligence can at any time make the hardest substance soft, or vice versa, providing the occasion arises for such action, and it is needed to preserve the integrity of her frame and its surroundings. Behind each unit body or an earth action is a varying quantitative force. Detailed intentions and expressions represent the liberation of intelligent deductions.

Glacial and other stones exist. Ask the scientist what *caused* the stone and he will reply, "Each stone has grown." Weigh a stone at two long periods of time and, be it small or large, that stone will have grown. Atoms *upon* atoms have gathered and this mass gradually, in its rollings, became compressed, hence solidified. By process of compression it decreases in size, hence increases in volume, solidity and weight. In detail it increases by the coming closer *of atoms*. It may be atoms of one character or of another, according to the makeup of the stone. What kind of a stone it may be depends upon *where* atoms began to be compressed. It would not be possible to find a *sandstone* being formed where only clay existed. Nor would you look for a *limestone* where only sand existed. The *sandstone and limestone* were formed where sand and lime were. Stones form from the one or more materials of which they are composed. It again is possible that there might be a *sandstone* formed at one time and in one place and then, by moving, through an earthquake or glacier, the stone would be shifted from one field to another containing lime, and there have another series of atomic accumulations added to the already formed *sandstone*, and thus have a *sand and limestone* in the *same* stone, although of different concentric material and time constituents. You could go to a marble quarry and find soft and hard stones growing—provided you could tell growth in the abstract, for there are hard and soft stones in one location in different strata the *same* as there are flabby and well-developed muscles in the same body. A sandstone is sand grains held together by compression exerted around them, obliterating the compressible elements.

Take a given quantity of sand, pour water over it, let the water soak between the particles of sand, then introduce cold (which is done by the obliteration of heat units) and the mass becomes frozen—solid and hard—this is typically a sandstone.

A diamond is a stone. The qualifying chemicals have yet to be unlocked from the bosom of Innate Intelligence. Man doesn't know what is necessary to make a diamond, and yet, *if* he did, he could not comprehend the process of putting them together. No matter what name the stone possesses, where it was, is, or will be, it is the *coming together* of atoms; and yet the "coming together" of vegetation or minerals *is* the expression of a force.

Rock may be laying here or there *and growing*, for what economic purpose you and I can't answer. The tombstone, torn from its earth home, as it were, has certain shape, size and characteristics; place it in a *foreign* location and it gradually decays, the length of time depending upon how solidly the atoms were placed together. If growth implies atomic addition then decay is proven to be atomic separation; *the time* of addition and separation may or may not be equal.

In studying "stones" there are three essentialities — matter, intelligence (or force) and time. Intelligence works matter with time. Stalagmites and stalagmites are examples of the above analysis. Rain water, running into the earth's crust, carries mineral and vegetable elements which the limestone rock itself has and has not, hence every drop running through a crevice carries atomic constituents which are deposited. Millions of drops equal millions of cells which are, through process of time, attaching themselves to each other. This continuous process equals an elongated stone.

Compression and heat are and are not necessities. Some stones could not be made without one or the other or the two. The comparisons vary according to depth (for compression) or location (for heat). A complete and accurate analysis could be made for one stone, but that could not be made to account for all.

We are told that it takes more than the common heat of the superficial earth to form a stone, that stones grow more during summer in its hottest days. For instance, heat (more or less) is a necessity to make solidification in the vegetable or mineral kingdoms. If you want to find the home of a particular stone, go to a certain region where volcanoes have occurred. Geologists can approximate the layers, thicknesses and distances by studying the general type of earth of that locality. What time these volcanic eruptions and excessive heat took place to make those strata, and how deep they now are, has to do with the solidity. In vegetable matter there is more or less moisture which induces dissolving; the absence of moisture tends to condensation. Heat withdraws moisture from vegetables, causes them to shrivel, dry up, and return to dust. If pressure were exerted during the withdrawing of moisture, a compressed product would be the result. Pressed paper products are made by this process.

The following are the material and immaterial constituents necessary to form a stone:

- Atoms.
- Force.

Atoms separated by more or less particles of moisture.

Obliteration of moisture by heat force.

Bringing together of these atoms by compression of layers of earth.

Time.

Product.

Stone.

The difference in stones is due to the character of cells, the varying degrees of compression and heat, and the fluctuating quantities of time which modifies "the character." *Sandstone* is a *soft* stone. It does not have the compression that granite or marble has. Study the grain or figures of marble, and, speaking of it in the sense of a metal, we would say, "The metal has run." Cararra marble displays how cells, in more or less soluble wet forms, have been moved by compression and resistance on all sides, which makes a curlique, due to the forces compelling it to roll one way or another.

In a paper carton is Quaker Oats—they are dry. In a jar is a quart of water. Mix the two, let one soak well into the other and you have mush. Apply force from above downward, with resistance at the bottom and all sides, and you have a compressed substance. Put the original mush in a pan, without compression, place in an oven, apply heat, and you have gems or Quaker-oat biscuits. The biscuit is, in this analysis, the stone. Suppose, though, instead of the pan's being of a certain size, that you had matter on all sides which was subject to be moved and you smeared this mush into variable running forms—can't you see that, when baked, you issue just what you put in? This is sometimes noticed in the shape of the grain of inferior glass.

The same might be said of the constituent elements of putty. There is the dust, mix well with oil—it must be neither too thin nor too thick—but pasty. You place putty in holes around window panes. When it dries it holds the glass or sticks in the hole surrounded by wood. This is producing an artificial *stone*, for it hardens only so fast as the oil withdraws from the putty; i. e., as soon as the water leaves the oil we have a solidified putty. While the mush was mush and the putty was putty, either could have *run* and changed the form for which you intended it.

The same is true of larger bodies of *naturally* composed cellular combinations. Before they had solidified, portions of the earth could have trembled, shook or changed location and caused these layers to *run*, thus bringing forth the fanciful designs we see in stones of today. This pressing takes place during the stages of upheavals and compression. Even though we study it from this standpoint, we must again refer to *the* essential which *caused* this to take place—the one great, creative, infinite intelligence itself, known under various names. The theologist names it God. You might call it the worldly conscious mind. There is more freedom in Universal Intelligence than our names give credit for.

A tree exists on the Government island which has two large trunks and is connected by a large branch cross bar. In what way could this tree appeal to you? Does its mute appearance speak? Why are these two branches united above? Have you any suspicion? *Nature* wanted it that way. *What is nature?* Is it *something* that grows a tree? The average materialist or botanist doesn't know what *nature* is or *why* it does things. The physician says *nature* cures. What is "nature," doctor? "We don't know." Take the philosopher, naturalist, or the woodsman, and any one of them will give you a more *natural* answer than the scientifically trained physician. You ask "why did this branch grow from one trunk to the other?" He looks it over, examines and considers *more* than the tree and replies: "Where these two trunks are now together, at one time that tree was split, and was falling over. At the time this fracture occurred this smaller branch above was growing *towards* the second trunk. The tree's Innate Intelligence took this branch, united it to the other trunk, welded them together, and pulled the fallen one into an upright direction. Today there stand two straight trunks, completing a natural bridge or arch above. Intelligence did this for a purpose, with a direct and specific object in view. We admit there is an intellectual power that does things greater than Educated man can place in comparison.

Stones exist in human bodies. Where they are, of what they are formed, and how formed, has much to do with the name attached. They are not always technically known as stones. The stones external to man are normally made, those internal to man are abnormal, both of which have a comparative analytical formation. Normal man was not destined to have *stones*, although bones are, within reason, stones formed under a normal process, and exostosis or osteosarcoma of which would be an abnormal stone. Man is composed of cells, has liquids, muscular compression, and heat, but no one or more of them gets in excess or minus in the normal man. Where man is perfect all materials are in normal quantities, one to balance the other, one to keep the other in a normal condition. Normality is the normal quantities of each playing in and between the balance. These stones can exist in almost any gland that has an infundibulaform, or any reservoir of the human body. *Stones* can form in the salivary gland, kidneys, ureters, bladder, bowels, spleen, gall duct, gall bladder, thyroid gland, in fact any gland. You will occasionally find them in the rectum or in any joint in the body. Compacted and dried faecal matter is in a sense, *bowel stones*.

Stones in the human body are formed involving the same requisites as we have in the external. It is a gathering of atoms which keep increasing to cellular sizes and with the additions of excessive heat and compression they gradually solidify, get tighter and tighter, closer and closer, until they become *a solid* mass of cells.

Excessive secretion, contractures, contractions, or heat; any one or a combination; is equivalent to the product, providing all other functions equal such a product.

Take the common illustration of gallstones, generally formed in the gall bladder, although they can be and are formed in the liver. Collistera is one of the chemicals found in that organ. It is one of the chemicals that, when under excessive heat, crystallizes. These crystals go into the gall bladder and there the gall bladder acts as a receiver *and* gathers crystals. Crystals, being heavier than liquids, go to the bottom of the reservoir. The inflamed bile keeps forming crystals in the liver and going into the gall bladder. More crystals keep gathering in the reservoir. This gall bladder keeps contracting with three various directions of contractile movements, which abnormally constitutes a process of compression which, through the process of time, assembles the crystals into an irregular shaped ball. It may be symmetrical, or oblong in shape. It is always without corners. It is quite solid, but never as much as the stone on the outside, for the pressures are not so great. It is solid inside compared with the normal state of the surrounding balance of the structures. While one is gathering, others are started. At one time we may have one or a dozen or 20, 40 or 50 in various states of manufacture and of different sizes.

The crystals have formed from normal or abnormal secretion made by the liver.

Therapeutically the external man has never been able to devise, in the form of a compound, anything that will reliably liquidize or dissolve this internal stone. Therefore, we must resort to one of four ways:

1st, externally injecting some liquid which has for its ultimate conclusion a conversion of the solid to a liquid state; 2nd, surgically introducing some instrument into the organ, superficially located, to crush the stone, thus permitting more free passage; 3rd, stimulate the external region over the cavity containing the stone, thus thinking to stimulate the flow of liquids to the cavity, thinking to liquidize the stone by an excess amount of liquid per the same time; or, 4th, analyzing the condition, finding its cause and reversing the steps, as per Chiropractic.

In gallstones (all other stones standing the same relative analysis) the four constituent states are: 1st, tissues; 2nd, liquids; 3rd, heat, and 4th, compression. When these four are normal all work to the benefit of the other—natural quantity and quality is the product. Introduce an excess of heat, all other states being normal, and you crystallize the liquid state of the solids. Crystals gather into forms, assume shapes, all of which form stones in a process of time. Excessive heat thus modified the normal to abnormal. A person may go through life with several “stones” in a gall bladder and never seriously realize the fact.

In every step we take in the study of stones, no matter where made, we study force of a given contractive character at a given

normal or abnormal rate, per the time and quantity of an organ, and matter with which it has to deal. You, who know what Bright's disease or diabetes is, know that the vessel contains a sediment. This is crystals. This deposit, that you now see, was once in the kidneys in a normal soluble form, but the organ being abnormally heated, the product tallied in its various quantities. Feverish persons are dry and yet they are partially moist. They need plenty of water and should have it, because the heat is drying from their bodies the various liquid elements within them. This condition is also true with a kidney, gall bladder, etc. It is possible to have a localized fever in the kidney, gall bladder, etc., and thus affect primarily the flow of liquids which pass through there without materially affecting anything else.

The kidney belly gathers this urine in small quantities, here excessive heat causes changes, here these crystals gather around a nucleus, and soon a stone is formed. It is the passage of this stone into the ureter which induces the paroxysmal pains as it passes through to the bladder. After reaching the bladder there is a relief, but his suffering is not ended. It must yet pass through the urethra and the pain is again excruciating until it reaches the outside. In leaving the body it can be heard to strike the side of the vessel.

The question arises, "What about his normality and abnormality and his creation, the same as we would look into sandstone and its creation?" Man is but an intellectual producer and a mechanical product. He is a product of his father and mother. The product of *what* behind the father and mother? So far as the father or mother were concerned they knew not whether it was to be a male or female. Nor did he or she have any control over that question. As far back as we can go, we find that the mother's educated intelligence does not create the child. There is something behind the educated mother over which she has no control. There is, behind the father and mother, an Innate Intelligence that completes the child, makes it what it is, and at birth the sexed child is formed. He becomes the product and immediately becomes a producer. And the moment he ceases to be a mechanical product he is a unital intellectual producer, and when he reaches the last stage he ceases to be in the light of a product. So that as we go into this subject we find the child has the passage of the bowels, has the suckling of the breast, breaks a bone and it is healed as well as in the adult. There is local intelligence which now creates products in that child.

Watch the movement of anything, and you reach back to that creative intelligence that allows man or woman, child or beast, the sense to personify themselves in the manner which they do, and it is this creative intelligence that eventually reaches man from the medium of his brain wherein these thoughts are made. A man has little knowledge of the internal half of himself. He doesn't know what is going on. The other fellow is in close quarters where his man don't reach him. There are progressive steps be-

tween one and the other man, although both reside in one body. Man is dual. It is "the other fellow" that you and I know so little about that forms the secretions in the structures. It is when these forces are interfered with that consequential actions are not normal; when you put resistance between transmission and expression, you intensify and increase the expressions of power. Place a resistance between that portion of brain and the point where its product should be expressed and you increase the temperature. You raise the localized area or general viscera to fever heat, to more heat than was necessary to perform its secretive duties. The result of this change is to intensify the solidification of the liquid; and the product, with the heat, is a glandular stone.

To study man rightly is to follow the products or mediums of his secretions, normal and abnormal. To do this we must refer to the intellectual creative power. You can't consider him without. To study the material man is to see one-half of him. The other half you generally ignore; the half that does things is the valuable portion you don't see. The material man has studied the corporeal man for thousands of years. The opposite phase and the connection made with material man must be studied together.

Go into the philosophy of man; find that he has brains. They are centers from which thoughts radiate, from which there are transformations, which receive this superabundance of power and express it. In man the two brains are the one center and from this center is the continuation of the spinal cord reaching to every gland in the body. The power necessary to allow any gland; whether the liver, kidneys, or bladder; to work, is the force that the Chiropractor considers, studies, knows where it is hindered in transmission, and with which he deals when occlusions have been made normal in size and form. It is that connection with the vitality that these glands need. When a patient approaches us with gallstones, liver stones, renal stones or bladder stones, it is not, "What are we going to do with *the stones*," or "how are we to rid the body of that stone," "how shall we crush the stone to get it out of the body," "what shall we do to liquidize the stone?" These are the furthest thoughts from our minds. The Chiropractor works with the principle of cause in and behind the stone. What caused the stone to be there? Excessive secretion, perhaps excessive heat, always pressure, and time. Each of these is the result of power being abnormally expressed. Can we reverse this process back to normal; can we reestablish this secretion; can we restore excessive heat to normal heat; this contraction to normal contraction? If we can establish coördination then the stone resolves itself to a state of dissolution. The Chiropractor does not know of such a thing as "the passage of a stone." If he can restore to normal, he takes that stone backwards through the stages until it resolves itself into collisterra. He uses no instruments to crush the stone. He has in mind the reestablishing of the currents of power; the reestablishment he com-

municates to this from the point of creation to the point of expression. How much easier to work upon the principle of cause. Like cause, like effects. Reverse cause and reverse effects. The true cause of any stone in the human body has not been known until recent years. Medical men who have given them attention have been ignorant of what causes the crystals or the conversion of a liquid into a stone.

Dr. Butler puts in seven pages on "the stones of the spleen," and after spending two pages on etiology, the study of cause, he leaves us without the least knowledge. He tells us, of course, that the splenic stone is hard, and about the symptoms of its passage, and that it is easily removed under operations, etc., but that which *caused* it we don't find. Under treatment of gall-stones and other effects: "In an attack of biliary colic the patient should be kept under morphia, given hypodermically in quarter-grain doses. In an agonizing paroxysm it is well to give a whiff or two of chloroform until the morphia has had time to act. * * * Since the days of Durande, whose mixture of ether and turpentine is still largely used in France, various remedies have been advanced to dissolve the stones within the gall bladder, none of which is efficacious."

On the question of renal stones, he says: "Treatment—When the pain is very intense morphia should be given hypodermically, and inhalations of chloroform may be necessary until the effects of the anodyne are manifest. I have had no success with this treatment."

Man tries to treat effects, but he has as yet accomplished nothing.

Dr. Osler says, under the same question, "If calculi, composed of calcium carbonate or phosphate, can be recovered from the stools subsequent to the attack, the diagnosis is confirmed."

Two physicians had one patient. One said, "Doctor, we don't want to operate upon this case," and the other said, "We do." They finally agreed to operate. Each had his opinion as to what he would find upon operating. One said, "We will find gall and renal stones." One said, "I bet *upon post mortem* it will only show renal stones."

Dunghlison gives little further information on calculi other than to say that "solution is generally impossible. Expulsion or extraction is the best." Under the head of "Renal Calculi" he gives, "Symptoms and treatment vary according to the seat of the calculi." We find further that "treatment varies with circumstances."

The physician or surgeon has no means other than dosing or performing an operation. Getting down to the question that is involved—permitting the stones to be removed *naturally*—he has no means of dissolving the stones *in its original place*. We, as Chiropractors, will step to a patient and at no time will we expect to see a piece of the stone. Recently I was called to a case where the patient was suffering excruciating pain, a pain that is char-

acteristic in the passage of renal stones. We gave an adjustment and within a few minutes the patient was lying in bed, went to sleep and slept from 6 until noon, after putting in hours in the passage of those stones that were terrible. Adjustments restored the forces that were abnormally making these stones.

In the study of stones the Chiropractor does not treat the effect; he makes a special study of the cause.

This afternoon we had a clinic, and among the students was one physician who had been in practice for many years. When asked what he would do medicinally for a case of neuritis or neuralgia, he said he would prescribe so and so, and if that failed he would try so and so. "If that failed, what would you do?" "I would turn the case over to the Chiropractor." The Chiropractor would not turn that over to someone else. *He* studies *cause*; that is his hobby. He does not make any pretense of studying effects.

HEMORRHAGE

"Hemorrhage" is defined in as many terms as authors you quote. The populace at large have an interpretation, but I shall place one that has not been made before.

Webster says: "Any discharge of blood from the blood vessels." *Dunghlison* tells us: "Bleeding, loss of blood, rupture, bursting or breaking of a blood vessel, discharge of blood from vessels with or without rupture of their coats." He takes considerable space with "traumatic hemorrhage," "passive hemorrhage," etc.

Blood consists of the red and white corpuscles floating in plasma in arteries and veins. To float corpuscles it is necessary to have *something* to swim them in, therefore to that *something* is given the name urea. They are around and within the plasma or "liquor sanguinus." About this fluid very little is usually said. Where it comes from or goes, what its purpose is, is not known, consequently not talked much about. Blood is usually defined in a loose and questionable manner. Its definitions are not confined nor tangible. This liquid part, that which floats corpuscles, is a part of the continuous serous circulation. The corpuscles are floated within *urea* the same as nutritive elements are floating in serum. That is one object of serum. In the arteries or veins, though, the liquor is not serum, but a form of *urea*. The process of osmosis of liquid through the walls into the arteries is that of extracting from serum the nutrition which muscular fibres need; consequently, when in the artery, it is *urea*. Corpuscles are tissue structures, hence need nutrition also, which they get from the elements left after serum has passed through the muscular walls. All nutrition is not kept in the same high form as when it starts. What an excrescence is to one tissue is but food to another. The waste from the muscular walls is the food for corpuscles. When it is ready to leave, it consequently goes to those places where least resistance will be met (intercellular spaces), for the passage of urea from them externally to the onward portion of the serous circulation. From there it eventually reaches the kidneys. The inward circulation is *intracellular* and the external *intercellular*. The corpuscles meanwhile are transported back to the heart, reoxygenated and again started back through the similar processes mentioned. It is the corpuscle that carries the oxygen to, and carbon dioxide from, the various parts of the body. The usual interpretation that we find in books is a fluid substance found in arteries and veins.

Tonight we make a distinction between corpuscles and the matter in which it floats, although in anatomy it is usually spoken of as the various parts of one. The name further designates a certain compilation of substances placed together in certain composite form. Man is two-thirds water, and blood is almost three-fourths water, and the balance (one-fourth) is corpuscles (blood).

In this liquid is a deposition of pigment substances which gives the red color. After corpuscles give to the cell its oxygen and combustion has taken place, they pick up the carbon dioxide and it is circulated back to the heart. Meanwhile it has changed color. Instead of being scarlet, it becomes somewhat purple. That shows that certain elements have been subtracted from the arterial blood and venous blood represents the balance. Every structure that secretes or excretes a liquid does so by depositing more or less pigment in it. Pigmentation is one combination of chemicals necessary to make it valuable. Blood, as a secretion has its color as much as bile, pancreatic juice, gastric fluid, etc.

An individual cuts his finger. It may be small and a little blood gathers on the surface. Soon coagulation has taken place and we say "The blood has coagulated." Yes, the blood has hardened, and for it to become solidified there must be certain things changed; *i. e.*, from the corpuscles has dried this *urea*. For a more simple illustration—your potted plant is wet and then dry. What change took place? You did not see anything leave. Was anything added? Not necessarily. The change that took place was that of absorption of the liquids formerly contained in the earth. Blood is the corpuscles, the water is the *urea*. Liquor leaves the corpuscles through the breezes blowing over the surface, which breeze absorbs the moisture and leaves the corpuscles in a solid or dry form. We still call it blood even if the *urea* is gone. This is clotted *blood*.

In some common disordered conditions of menstruation, there is a deposition of blood. It may be spoken of as a clot of blood, but when we analyze this under the microscope we find that sometimes it takes on such phases as to be known as a tissue. Sometimes it is difficult for the histologist to say, "This is tissue and this is blood," or to say, "This is a clot of blood," or "This is the early semblance of a foetus." Sometimes the best histologists are puzzled to correctly name it.

In man there is a *blood* circulation of the body. Chiropractically meaning a circulation of *urea* which is constantly floating an army of corpuscles. This is divisible into the systemic, portal, the inferior and superior cavæ as they convey liquids back to the heart; and, in summing the structural constituents of the veins or arteries; the aorta and its branches, the heart and its divisions consist of many muscles both large and small, short and long. These muscles are detailed into squads and follow definite plans for a systematic series of movements. They are arranged in layers, having certain specific directions of functions to perform. The investigation of the muscular structure of the walls of arteries and veins is alone one of the greatest subjects we could have for individual study.

They have usually been described as formed of three coats: first, external laminated or areolar membrane, *tunica externa or adventitia or cellularis*, *vagina cellularis* of dense and close char-

acter; second, middle coat, *tunica media or elastica*, composed of fibres of elastic tissue and of smooth muscular fibres and eminently elastic; third, inner or endothelial coat, *tunica intima or glabra*, thin, diaphanous, reddish, and polished, composed of pavement epithelium delicate connective tissue and elastic fibres, perforated so as to entitle it to the name of fenestrated membrane.

Let us work layer by layer, from the inside to the outside of the artery and study its tissues. On the inside is the epithelial layer. It is a mucous membrane which is of very fine velvet consistency. It has a nap. This is kept moist by an oil oozing out, consequently as blood passes through these veins there is practically no friction. On the outside of this epithelium we find interconnective tissue, serous in function. It is cross-grained and through this is coursing a fluid. We call it, for the want of a better name, serum, which passes through this epithelium and then its inner surface has "mucous" as a product. Outside of this we find a coat of muscular fibres minutely small, each of which has a certain direction, obliquely downward and around, like a screw, starting at the most superior portion of the muscle and having movement downward and away from the head. Have you ever noticed how shavings come up the bit when boring a hole? They work up spirally and in this case muscular contractions work down spirally.

I will try to illustrate what I mean. The tubes are of varying diameters, although in all the same conditions exist. The liquid is poured out from the heart at one end and eventually reaches the heart at the other end, but, meanwhile, during its passage, it is not standing still as regards its downward course. Many people seem to have the opinion that water that is on the left of the hose at the faucet may stay on the left side until it reaches the nozzle. This may be so with the hose, but not here. The muscular cells are spirally laid; then when a continuous flow of mental impulses is poured into them they contract spirally, hence the blood takes the characteristic movement as impelled. With spiral stairs, people must go round and round *and at the same time downward* to get out at the bottom. The transmission of blood reminds me of spiral fire escapes. This is done to make more perfect transmission and to see that blood and its elements not alone get from end to end, but at the same time swashing it around and around, passing it onward and forward and swishing it from side to side in a circular or spiral manner. The idea is to give it that spiral whirl to mix it well as it goes onward.

Outside of this layer of muscles is another intercellular covering of tissues and in this is a fluid called "serum" which is in constant circulation, and external to that is another layer of muscles. Although there are already two sets of fibres, yet Innate deemed that not enough and gave the third. The direction of deposition of fibres of each set is different. In this the fibres go around,

transversely, not spirally, from side to side, making simultaneous movements on all sides and definitely making the opening smaller, pushing forward at all times. This is so steady, regular, methodical, that the blood now is going onward in three directions. First, with that round and round movement, and, second, going forward by a contractive move from side to side, third, that longitudinal contraction which always pushes downward. You see what that is doing? It is pushing it in and pulling it out. Three movements make that lumen larger and smaller, constantly giving, as it were, a combined impetus.

In the first illustration, while there is a spiral contraction of size, the real action is to start it around in a twirling direction, and the next is to increase and decrease the size of that artery. On the outside of this is another set of fibres and on the outside of those is a third layer of muscles which run the full length of the tube, perpendicular always. The result is that the combined action is characteristic of the wormlike movements. Briefly, then, a review of these muscles taking from the inside out, the first is mucous membrane, the second is a fine network of fibres through which is coursing a serum; again we have another layer of muscles, again another intervening layer through which serum is flowing, another layer of muscles. And outside of this is a fine capsule that invests arteries, veins and even the heart. All of which receive their serum as it is gradually working from the outside to the inside.

As we revert to the subject of hemorrhages, you probably ask, "What has this to do with the leakage of blood from the body?" Muscles have a specific intellectual tonicity. One individual says, "I feel tired today." He is not quite up to the tone he ought to be. The other says: "I can work with more avidity than I could yesterday." Why? There is a lack of tonic condition of one and normal in the latter's muscles. What is the lack of tonicity? It is a lack of current force, power, energy. When we study the more minute muscular fibres that surround these arteries or veins, the better we come back to the same condition, where they must have a normal amount of strength, the same amount of contraction as any other part. Every muscular fibre, no matter whether it be in the arteries of feet or head must express those impulses when they come to them. They must be able to accept and take them unto themselves and personify the creative types.

Revert back to the starting end of our tube. As soon as every muscular fibre in the three divisions of that tube receive their normal amount of impulses, then those fibres contract with an equal spirit, force or energy. But suppose that some of this force were cut off. Watch the changes that will take place in that muscle now standing erect. It is going to relax and drop. And when it goes over, there is one name we express that quality with—prolapsis,—you call it hernia, and you call the more pronounced after effects a hemorrhage..

Watch a similar change with an artery or vein, and you will see how we get the *internal* hemorrhage. The muscular fibres relax, prolapse. They struggle trying to do their duty in circulating the blood as best they can and finally when too weak muscular fibres separate or spread one from another. The relaxed fibres leave the erect ones and the each successive layer externally will spread from the next adjoining layer, either internal or external to it, and the spreading in all these makes an opening from the outside to the inside. The blood having more force than the weakened resistance of tissue, rushes or oozes out and it is called a hemorrhage. How large or small the hemorrhage is depends upon how much tissue is involved in one layer of muscles. How bad the hemorrhage is, is determined by the number of fibres relaxed. A patient enters. "My nose is bleeding." What thought do you get in mind? To some it has no further significance than that blood is dropping on the handkerchief. Another would say, "Blood is coming through the nose," and another, as he studies the hemorrhage, will say, "There is an opening somewhere inside where muscular fibres have spread. I can see the blood dropping, drop by drop, from that opening. I will see what can be done to stop it." Another sees the fibres, and mentally approximates how everyone must have a certain number of mental impulses of specific quantity and quality. The muscles are organically normal, but he sees that the functional impulses that should be reaching them are not doing so. He further sees the subluxation. *Inasmuch as I saw what others have not seen then it is for me to adjust that subluxation.* I will open this occluded foramina, currents are coming from the brain, nerves will increase their transmission, the current enters and goes to the muscular fibres, they receive and permit them to act their personality. Its actions express what we would do under the same circumstances, only they did it better. Where is the hemorrhage? By adjusting the subluxation, restoring the transmission of currents, inducing muscles to contract, the breach in the wall has been closed. Who closed it—the currents or we?

We might go further and consider hemorrhage of the uterus. The hemorrhage may or may not be of large size. The flow may or may not be of great quantity. When considering where the hemorrhage is, whether the artery or vein be a large or small one, it brings to view the fact that the larger the tube, the greater is the quantity of blood transportation, consequently the greater pressure from the inside to the outside, hence must be equally as great reversed. The resistance internal and external to an artery or vein must be *equal* at all times. For one to get above or below the other is to expect either varicose veins or hemorrhages. Remember, that in the creation of things, everything was made to withstand a certain amount of force, a certain amount of power, and the muscular fibres of the uterus represent a similar expression. When you are breathing normally there is the same amount of air pressure within the lungs as on the outside. The pressure ought to be the same on

all sides at all times. When we study hemorrhage of the uterus the conditions are the same. Watch the successive changes that take place. Blood flows to the uterus with a certain amount of power behind it. Suppose this drawing represents the wall of that artery. All fibres stand up firm and offer a specific resistance, and not only acts as a retaining wall, but also a moving wall which forces blood onward. Suppose these muscles become relaxed or prolapsed, this wall has weakened. Blood keeps flowing onward at the same rate of speed and with the usual degree of pressure upon the side walls; these walls no longer hold it, and a leak has been sprung. There has been no tearing nor splitting, just a simple separation of fibres.

What are *you* to do with a case of that kind? What can you do? What is the proper thing to do? Heat expands, cold contracts. The hemorrhage is there because the muscular fibres are relaxed—expanded. If you want to treat effects then fill that uterus with cracked ice or apply it wherever the hemorrhage is, or as near to it as you can. It cools, chills, causes muscular fibres to *unnaturally* contract by way of resistance to the ice, but as soon as that uterus gets hot again that hemorrhage can return. It may be useful as long as it lasts, but there is going to be further trouble later.

Having shown you the condition that exists, and how simple its cause, then you can see that to doctor effects would be but a temporary relief at best. The proper thing to do, knowing that the currents are cut off, in that zone where the hemorrhage exists, is to trace those tender fibres from the effective to the causative mere, and then adjust the vertebral subluxation. It is worth more in the permanent end. While you would not trace while the hemorrhage is flowing, yet this could be done any time previous to the permanent correction of the subluxation.

What to do in an emergency is an important question. I have yet to see the case, following pathological conditions, but what adjustments would correct. I have seen some severe cases following traumatic reasons, that only a tourniquet would have ordinarily stopped, but adjustments did it without. Seems improbable, yet true. The reason why the abrasion would not contract at the edges was because of the lack of impulses. The adjustment permitted them to be restored, hence normal actions ceased the flow, the muscles around the mouth of the opening were closed.

A typical case of prolapsis is the well known "varicose veins," in which many muscular fibres of one or two of the walls of the veins become relaxed, prolapsed, and the venous blood oozes through these walls like so many small balloons on the surface of the vein. The prolapsis may and may not bleed, yet the foundation is laid for it.

Hemorrhage, then, is based upon the relaxation, or the prolapse, or the abnormal drooping of muscular fibres. What can a Chiropractor do? A patient has a flowing of blood from the nose.

What will the capable nurse do? What will the ordinary physician do? He may guess that something cold at the back of the neck will be good. (Do you see the philosophy? There is where the sublaxation is.) The Chiropractor will lay that patient on the adjusting table. If it is on the right side, we adjust the fourth cervical to the right and he will get up in one second, very gingerly, to find it has stopped, and then wonders why. We have restored that mental impulse current; as soon as the current got there, the fibres drew up to normal position.

You ask, "Would not that same proposition hold good in the case of excessive flowing during menses?" I will state a case I recently had. The very profuse flow continued for a day and a half. One adjustment and that hemorrhage ceased just as you would turn off water, and she was at her housework the next day. There was a case that would have undoubtedly flowed to death. Nothing did stop it. Putting cloths in the uterus may have caused coagulation, but when those were removed the blood would rush forth again. Ice may have induced relief, but permanently the cause had to be adjusted.

You say, "What about the hemorrhage of the period time?" *It is a "hemorrhage."* Do you say that a hemorrhage is normal? The hemorrhage at period time is abnormal. *Healthy women will not have it.* It is not necessary that she should. I refer you to almost any type of animal and to any type of a woman that lives *the natural life*. We are not living the natural life today. But take any normal female in a wild state and this woman does not menstruate. They have a normal period well defined and typical as any woman should, but during that period they do not flow *blood*. They do flow, though, a mucous which is viscid. It is such as any mucous membrane of any internal gland or organ when hypersecretive would issue, and in this goes forth the ovum, from which fecundation takes place. It is not requisite that there be blood to assist in this function.

I have seen three cases of *normal* women. Women think that an individual that does not flow blood would be unhealthy. Contrary to that, I have seen two women who did *not*, but did produce families and were typical in health. Not an ache or a pain. "In substantiation of this, and no matter how broad or meager your acquaintance has been with animals (and while a man doesn't usually wish to be placed on a footing with animals, we have carried the point that man was but an animal, just as much as a cat, dog, or cow that roamed the world), close observation of them will demonstrate this truth. I don't know of anyone that could go into the question from a physical standpoint that could show that an animal was better than man or man better than an animal, or could give substantial reasons why woman *should* flow at such times.

It is not necessary for the male to flow blood to induce conception. The male and female have equivalent organs. The counterpart is found in the opposite sex. So far as physical goes they are

the same. I know of no argument which would or could prove the necessity or logic of the woman having to go through an abnormal state to perform a normal function.

Hemorrhage, whether from the nose, rectum, stomach, lungs, uterus, fallopian tubes, or ovaries, at any stage, is abnormal and I believe we will find not in my generation, nor that of my child, but in those to come (when every family has Chiropractors in the father and the mothers and the children are brought up with almost perfect spines) that hemorrhage of the female will be an unknown quantity. It will be regarded as a disease.

I have advocated this principle for several years ; in fact, long before I had found other parties who agreed with or substantiated this idea. I now have an important work that agrees and he (the author) proves it from one female to another over the world, from Africa to Alaska, and proves that it is not impossible, but that it is universal to every person who lives the *natural life*. What is good for the male is even better for the female. In the sex organs, what a man has the female has also. They balance. Each has its opposite, so when you go into the study it seems unreasonable that the female should flow and male should not.

The thing for you and I to do is to advocate the adjustment of cause. It is simple, very plain. It is wonderful how quickly we get results following the adjustment of a cause for a hemorrhage.

TUMORS

We have in our clinic today a case that might be present in any place, at any time of life, in any color or race, or in different stages or types of tumors. While it is called "tumor," yet what general name or other title it might be given would be immaterial—paralysis or insanity would be as consistent. *What kind* of a tumor it might be is of no consequence. The important question to the patient and to the world at large is to know *its cause*, regardless of what "it" is and to know the results and the manner or means of effecting what the world considers *a cure*. You declare that to know what "it" *is*, is necessary before its cause is known—this is not true with Chiropractic. To realize effects a cause must be known, but it is not necessary to know effects to know cause. The physician of today does not appreciate what effects are because he does not know them from a cause standpoint, and yet every student of Chiropractic, knowing the cause of diseases knows more, by knowing less of symptoms, than any physician who has studied them for years. Effects cannot occur without a cause; therefore, if studying effects you *must* know causes or you cannot know effects so clearly, but if you know causes it is of no consequence to know effects, providing you have *the* cause; not a problematical one, but *the* FACT one. The therapeutical world juggles with many causes but each gives way to the real cause when found; when once that has been proven to be done, then the above statement will be known to be true, but not before. Only yesterday a patient wanted me to feel his abdomen and tell whether a "growth" was there or not, and whether it was internal to the stomach or not, whether it was on the rear or forward part of this or that structure, whether it was or was not a tumorous growth, all of which would not in any way prove *its cause*. Supposing I could give this information to the best of my ability (which at the best is guess work), what satisfaction is being given to this man? Suppose it was a "tumor"—could I have given him anything that would have helped him to get away from it? Today there is a crusade being waged to obliterate everything from the newspapers that speaks of crimes and items which do not present an optimistic study of the human mind. The idea is a good one, not from a suggestive therapist's standpoint, but from a general moral influence. With this comprehension I advance the same reasons for keeping from the patient's mind anything which does not elevate his comprehension. Far better to have *some* knowledge of cause, every bit of which can be corrected, rather than know much about effects, none of which can be removed permanently. To know *where* there is an abnormal effect is sufficient to prove the location of its cause.

As to the names, or shapes of tissues concerned within this growth (as a growth it is as we can see) medical science has filled endless pages—chapter after chapter, treatise after treatise, and

book after book have been written until libraries are filled, all to the end of which I shall quote shortly.

What kind of tissues this growth has differing from growths in other parts of this or another body, matters little in our opinion, and even though there *was* a great difference, what good would the endless knowledge be when it could not be reversed to what it should be? Viewing a mound from a distance, does it materially change the fact when we realize that instead of being black mud, it was clay mud—is not mud, mud? Therefore, the difference in color or quantity weighs but little.

The histological and microscopical differences and the symptomatological variances have reached a most perfect stage. I cannot conceive of any other branch of medical science which has reached so perfect a contribution to science. The diagnostic features are excellent; what more pleasant or unpleasant presentations could be added for the patient to think and ponder about, but before judging of its values to mankind, read on and see the end of all this.

As to the cause of tumors and their possible outcome, under medical and surgical palliative treatment, I wish to quote a few standard authors. The most important issue is the etiology, or the science of the cause of disease; in this case, the *cause* of this tumor. Effects are scientifically understood; causes have no science.

Quain's Dictionary of Medicine says:

"Disease, cause of.—Definition—Whatever is capable of damaging the structure of any organ or tissue of the body, or of interfering with its function, *may be* a cause of disease. This definition implies that such causes are numerous and *that of many of them science is ignorant*. To give a succinct account of them is therefore difficult, nor is the difficulty diminished by the fact, that in most diseases, we can trace a succession or combination of causes."

The definition states that causes "are numerous and that of many of them science is ignorant." He enumerates the general classification which covers 9 or 10 pages, taking in such factors as "age, sex, occupation, race temperament climate, town and country, hygienic conditions, previous diseases, mental and moral conditions, etc."

Consider each briefly.

"Age"—Our patient is 45—does this preclude the possibility of this person's having had a tumor when she was younger? Does it debar the idea, because she had this tumor at 45, that she could not have had it when 20 or 25? Is it not a fact that children and adults of any "age" have tumors variously distributed? If "age" is a "cause," *what* age is necessary to "cause" this tumor? If we know what "age" is a tumor producer, perhaps science might induce the person to die until they have passed *that* "age" and then come back to life, free from any possibility of causing a tumor to appear. As tumors appear in different parts of a body, we presume that there is an "*affinity*" of "age" for some parts of a body; i. e.,

when a certain spot has reached the right "age" then a tumor appears; if the person has six tumors then six organs have reached the tumorous "age." Accordingly we might conclude that man does not "age" all over in an equable manner—some parts grow faster or slower than others. Might not an explanation of this phenomenon be of advantage? At least an occasion has risen where knowledge would, possibly, obliterate this "age" cause. "Age" is a most unimportant factor as "*a* cause" of tumor.

"Sex"—Patient is a female. Do males have tumors? As there are only two sexes, it does not enter as an important factor. Perhaps the *right* "age" coupled with the *right* "sex" would bring us the unhappy combination. For instance, person 40 years and male in sex would have a tumor—the same "age" in "female" would not issue the same abnormality. Knowing that "sex" has a bearing, what about the hermaphrodite? Is he (or she) exempt? What about the person who is born a nonentity? Is it amenable to these theories? Is so, how? I am trying to get a theory that will apply to all conditions at one time. A tumor is a tumor, regardless of whether it be in a male or a female. The tissue cells composition is the same in either "sex"—the kind of cells and the size are subject to gradations, therefore we can discount the factotum of "sex" making an important issue.

"Occupation"—This woman has been a housekeeper. Would it have made a difference in the tumor if she had been a seamstress, cook or stenographer? Must she retain the duties accorded to women to have a tumor on or in a woman? Can she invade the professions of man and still be a woman with a tumor? Would the change of occupation exempt her? If so, then any man would invade the territory of woman's domain and never get a male tumor, altho laying himself liable to a female tumor, for does not Quain say that "occupation" is an important "*a* cause"? Observations show that there are tumors in every male and female "occupation" of life.

"Race"—Statistics show that Indians and Chinese have tumors. Are the Irish or Scotch, as a "race," exempt? If "race" is "cause," what races are exempt? Which ones have tumors, and why? To state that "race" is "*a* cause" appears vague without giving a reason, and if you have reasons how were they obtained? Does environment induce a "race" to be sickly? If so, why blame the "race"? If the Irish were to leave the environments of Ireland, would they still be an Irish "race," or would they gradually partake of the conditions where they moved, and would not the "race" equally change? If environment changes "race," would not also environment be "*a* cause," and not lay the blame to the people? Would not the French still be French in America? Do not the Germans retain their motherland "race" instincts? Because they have moved does not enter into the consideration. When do they retain or lose "race" instincts? Is there a cause for the loss or gain? If there is a "cause," then is that cause a normal or an abnormal one? Why is it normal in some and abnormal in others?

Why a healthy cause in the majority of the "race" and unhealthy in the minority? Why the discrimination? If all "races" have tumors, *without* a fixed or known law of "age," color or environment to fix their coming, then what difference does it make what "race" you may talk about? Can we ascertain a universal reason why *all* should have them? Can we not find *one* reason which might apply, with certain logic, to all conditions, regardless of country, environment, color, nationalities, age or sex, and make it establish good judgment and truth? Unless we can so do, needless questions will be asked without answers.

"Temperament"—Consider the wild woman of the fastnesses of Africa, or the affected society woman; the docile daughter and the jealous; are they not prone to tumors alike? If every type of temperament can have a tumor, why ponder over that as a causative factor? Why not name one a "jealous tumor," another a "flighty" or "nervous tumor," etc. If temperaments are a factor, why not have a scientific deduction or treatise stating how each temperament changes the tumor? What we ask for is an analytical gradation of the various connections. After all has been said and done, where is there a logical definition of "temperament," and who, when pinned to facts, can tell what it is and what makes the differences in "temperaments" and makes sudden changes in the same "temperamental" person within a few hours' or days' time? For given example, we have a "sane temperament" today; tomorrow the person is a raving maniac. What changed the temperaments? Is not "a cause" necessary, and, if so, what is it? What is the explanation offered for why they now have a tumor that before did not exist? Does "temperament" explain? If this question is so uncertain, and it is, why dribble?

"Climate"—The patient in question came from Vermont. The climate there is very "efficacious" for "many diseases;" at least, so we are told, for many a physician in the West (which includes any place "west" of Vermont) sends his incurable patients to Vermont to get "the healthy pine atmosphere." This patient should have improved in a "healthy climate" rather than to have got worse. If Vermont "climate" will cure (and physicians say it does), why will it not prevent? How could this tumor get a start in a "healthy climate"? In what way does "climate" overcome the disease produced by the cause of "sex," "age," "occupation," or "race"? We are led to believe that "climate" is "a cause" of disease in an inhabitant yet on strangers in like cases, from other states, it is a curative. Is it possible that a person born and brought up in "climate" gets used to it? If so, *why*? Is it possible that all "temperaments" in the "climate" of Vermont are tumorous "temperaments"? Is it conceivable that all the people in the "climate" of Vermont are of tumorous causative "race," of a tumorous "climatic" "occupation," of a tumorous "climatic" "sex," or of a tumorous "climatic" "age"? In what way does "climate" affect these important "climatic" inferences? Do not tumors grow in the altitudinous healthy climate of Denver, the sunny, balmy climate of

Southern California, the beautiful mountainous regions of British Columbia, in fact are "healthy climates" "healthy climates"? The United States is an example; there are "climates" from the cold North to the hot South. Do not tumors form inside and outside of people everywhere? Is any one climate exempt? If so, let us know where it is. Do not tumors grow *on trees* in any country? And surely we could not desire a greater range of "climates" than where trees grow. Where is the one class of people that are exempt from warts, and warts are tumors? When we have an answer to these questions, and an answer to the battalions of questions that those answers would bring forth, then we are ready to concede, perhaps, that "climate" has some pranking possibilities with a man or a woman which will cavort him to the various degrees of tumors.

"Town"—Consider Montpelier—the town from which our patient came. What difference would it make between this town, Burlington or Rutland? Perhaps one city has an efficient health (?) board, perhaps another has not. May be one city has natural spring water, the second drinks river water, and the third quenches its thirst on mountain water. One town may be nearer a district where fresher vegetables can be had—but does that exempt the citizens from having tumors? What are the duties of a health (?) board? First, to see that sewerage is carried away. Does that improve the health of the citizens? In smaller towns each home has its individual closet on the property; have they all tumors? The health (?) board sees that the city is furnished with fresh water (they doctor it with microbe killers before you get it), but does that prevent tumors? If so, we must conclude that where these things are not done the citizens must have tumors as a result of the lack of that precaution—is that true? No. We find as many tumorous cases in a town as in the city per the ratio of inhabitants. What is the value of a health (?) board? Do they decrease the number of tumors from appearing on or in the bodies of the inhabitants? Look over the city and country inhabitants—patients are being operated upon in each for tumors, both in the viscera and outside of them. Personally, I am inclined to think that physicians will admit that tumors can occur in their home town providing there is a hospital (and even this is not always necessary), and there is a \$100 or \$200 fee in it for them.

"Country"—Consider several distantly placed countries: Siberia, America, Turkey, and Natal. Are the people in any one region absolved from tumors? Do not citizens, who have been born, raised and died in each (perhaps have never stepped outside of the borders of their own city), have tumors, in the same places, same sizes, and formed from the same microscopical cells as any other person in any other country? What makes differences between "countries," dress, language, location, etc? Does language produce tumors? Does the fact that in America the men wear trousers, and in Turkey the ladies wear bloomers—in America the ladies wear skirts and in Turkey the men—is that a constitutional reason why Americans or Turks should be liberated from or more prone

to tumors? Why is the argument advanced that "country" had much to do with tumors? Broaden your viewpoint and consider *any* disease; is the "country" of more importance in one than another?

"Hygienic conditions"—The last analysis of "Hygiene" is cleanliness. No disease promotes cleanliness: for instance, catarrh, cancer, constipation, abscesses, etc. The condition which makes "Hygienic conditions" is a "natural" state—health. The state of tissue which makes *all* "unhygienic conditions" is disease. Health is minus disease and disease is minus health; the presence of disease proves "unhygienic conditions," and the absence of disease is "hygienic conditions," but what was the cause producer of the "disease"—tumor included? The present day conception is to scientifically look for "unhygienic conditions," *external* to the body, thinking that in some ill-defined way, they act infectiously or contagiously upon the inside of the body, thus making the inside as bad as the outside. Hence, the outside infects the inside and the inside, when spit, infects the outside; hence one makes the other and the other makes the one worse; therefore, the world is coming to a humiliating end because at one time an "unhygienic condition" got started.

Investigate that *first* growth of "unhygienic conditions." Hygiene is spoken of in its relation to the normal form of matter, regardless of whether a part of man, animal or vegetable life; therefore consisted of a quantity of normally acting material and to imply that today it is in an abnormal state implies that at one time it was right. An abnormality was a normality previous to that. This proves that there was an intermediate cause which made each condition. I cannot take time to go into a lecture on this subject, it is too ridiculous. Whatever is unhygienic was at one time normal, and as all normality starts from the inside and works outward, it is the interruption to this normality that made the "unhygienic condition." The "intermediate cause" being in not out. Anything personal that is normal is hygienic. As our patient was healthy until she became sick, we can argue that she was hygienic until she became "unhygienic"; hence, we conclude, that a disease just came because the disease manufactured itself. The disease is the "unhygienic condition," hence the disease and the unhygienic condition came simultaneously. The terms "disease" and "unhygienic conditions" are synonymous; therefore, disease makes disease. The same disease makes itself worse. If you can figure the possibilities of how this tumor made this tumor, I will admit the possibilities of "hygienic conditions" becoming a factor in tumors.

"Previous Disease"—This person has had inequalities that all people have at some period or other. Now and then she has had a headache, perhaps occasionally a toothache, and she worries, me-thinks. She may have had or may have now—corns, and as these are diseases that existed *before* she had the tumor, we must consider them as factors in its creation. As there seems to be no limit to where we should stop with the "previous diseases," I feel

justified (in this instance, at least) in assuming the basis of medicine to be correct, thus involving the question of inheritancy. This would involve the "previous disease" of her parents and her great grand-parents. The grandfather had a mare that died with tuberculosis; they associated more or less, and as "previous diseases" are factors, we can reason that such diseases made, or at least helped to make this tumor a fact. Dare we step out of the family to limit the application of "previous diseases"? Where do family lines end, or environmental associations begin? Might we not also take a theological-therapeutical theory and say that the inherited disease of Adam's sin has been handed down, and that this tumor is the result? As we are all having more or less of these headaches, corns, bunions, etc., why were they not also of value in producing a tumor in you and me? Why should it single *this* person out of a million and give her what we did not have, when we all had the same "previous diseases"? Can we give to "previous diseases" the power of entities? Did they congregate to show their resentfulness because this individual tried to force them from her body when they became too boisterous? If so, have we not all tried to accomplish the same thing? If medicine is truth, then all of the above is possible.

"Mental conditions"—This person worried and has a tumor. Have not others worried before and since, have you not worried, and are you not worrying now, and have you a tumor? This individual is an optimist, "everything is for good"; and yet in spite of this "mental condition," she has a *physical* tumor. She has willed and suggested its removal, has even played with Christian Science, and yet the tumor has continued to grow. Suppose grief has arisen, perhaps she is the most unlucky individual (at the hands of physicians), still she has the tumor. Her "lucky number is 13," especially if played on Friday; yet she wins on other things and loses on health. She seems to have superior blessings on many things, but is shy them on the "mental conditions" in its relation to tumors. The "mental" attitude is even better than many a person without a tumor, but the tumor and "previous diseases" persist in staying with the person.

"Moral conditions"—In penitentiaries, insane asylums, reformatories and houses of prostitution you find the immoralists. Every known crime can be attached to what they have done, yet they have and have not tumors. If crime is *not* a moral condition and sickness is an immorality and is dependant upon a diseased condition of the brain, then it certainly is "unhygienic." If disease is catching, and crime is a sickness; then crime is catching. If there was one tumor in a penitentiary, insane asylum, etc., it would pass unto all the inmates. If immorality is a cause of disease, then why have not all been suffering with the *same* disease? This woman, though, is a member of a Christian church. The facial expression shows that no wrong could be thought by the mind behind it. That expression shows justice, and purity and yet with all the charitable acts that could be heaped at her door, we still have the tumor. It

appears that tumors are passed out to the good and bad, to priests, ministers, and criminals alike.

As to the "etc." we are at a loss to know what is included. The attributes already considered almost cover the field. As humanity and animals are alike, we will assume that we can add anything we please to either. Under one common heading we will include all "other causes" which "other" physicians ascribe as "a cause" of tumors. Each physician that fails to alleviate or stop a growth looks into *his* authorities and finds what he considers "a cause." When none of those apply to the case in question, he coins a *new* cause. Under the "etc." we will include those into one universal cause and say that the basis of all is to believe that tumor, in some way, make tumor; whether it can be proven or not is immaterial—to them—but very leading to us.

As animals are subject to the same rules as man, all the attributes ascribed to man could be applied to the "lower forms," but is this true? Is this done in books? Do we find veterinarians utilizing the same explanations as to the causes of tumors on animals? Are they called upon to offer excuses at all? I believe that the veterinarian offers more logical reasons for the lump jaw or other diseases on or in animals than the physician does for the human family.

At this time I must make application of these ideas to the mechanism of a watch. Man is but an intellectual machine run upon mechanical lines and governed by a mechanical designer. As such, I think that any application that we may make of conditions not mechanical would also be applicable to the machine.

A watch is made upon definite lines, each part having its place. But suppose that one part was not in its place. The extra amount in some new place would constitute a growth or an enlargement upon the place where it was, but should not be.

Would the "age" of the watch have anything to do with this growth? Main springs break in new watches. Take 12 watches of a given make and one will break as soon as wound and others will continue to break at any time and no one yet offers any reason why. "Age" does not seem to be an excuse offered by the watch-maker.

While watches do not have "sex," yet we might argue that a male or female assembled its parts, or it might be carried by a male or female; yet this fact would not in itself constitute a "sex" cause why the spring should break or become loosened from its moorings.

Suppose this watch were carried by a capitalist, a blacksmith, a bootmaker, or a clothier; would any of *those* "occupations" change the material value of the same watch made at the same factory and sold by the same firm; and, methinks, no jeweler would so offer an excuse for the breaking of a mainspring or the gathering of oils in an unnatural place.

In this day almost every "race" carry watches, yet none offers the excuse that that watch would not have broken its mainspring

if *another* "race" of people had carried the same, do they? Does color of skin make a "race" different than any other? Granting that that is one "race" feature, does skin pigmentation make a spring loosen its fastenings more in the yellow-skinned man's pocket than in a red man's? Such a hypothesis would be ridiculous. Cannot we find one reason in the spring itself without all of this preamble which we can see is growing monotonous and without foundation?

"Climate" is a consideration that might be given as a possible cause on the ground of expansion and contraction; but to single one watch out of thousands and say that heat or cold makes a difference and made one spring break, is not reasonable, for *why* did it not do so in all the rest? Heat and cold may be "*a* cause," but it is a universal term and will apply to all conditions alike, and if you apply this hypothesis to one watch then you must also explain why it did not act on the other 999 out of a given 1,000 cases. It is easier to say heat or cold did this on a minority than it is to explain why the same heat and cold did not act on the majority, the same as it is simple to offer the excuse, that bugs cause typhoid. This problem is not faced nor considered until raised, which it very seldom is; but the men offering the opposite and the men who claim they don't know, offer whatever the expert is supposed to know and offers.

"Towns" makes no difference, for no matter where this watch was carried, if *the cause is the same*, the same breakage would have occurred. Would a change of residence from San Francisco to New York in any material way have changed the attributes of its working order? Is it not true that watches run in every state and country on the globe, and do they not keep good time when properly regulated? When they run right when regulated, would they not also run wrong when out of regulation? Would the change of distance from where it was to where it is now, make this alteration from normality to abnormality?

Does the Hampden Watch factory make one watch for Africa and another for Germany? Do they make different kinds of watches for each state, other than the usual grade of prices? Does every inhabitant, who changes his residence from state to state, also change his California watch for a New York one? In other words, must you change yourself when you change atmosphere? Must you change your Idaho body for a Connecticut one? It would be most unsafe to travel hurriedly if such were the case. An 18 hour trip from New York to Chicago, such as I took this past summer, passing through five states in less than one day, would be full of its dangers and errors for my health, for I am certain I would but have time to change five suits, much less find time between to know just what to eat in each state, just what to drink, and what kind of looks to cary on my face as I passed through specific "hygienic conditions." I remember now having my attention called to the drinking waters in the dining cars, and where each kind of water came from, but I thought they were drinks; now I think I begin to see they were state medicines.

As much or as little could be said for the watch that changes "cities" as the one which travels from "country" to "country." So far as the watch (or human body) is concerned I don't think it knows any difference between the earth, water, or skies, at or on the Canadian or Mexican border, and if an accident would happen I think it would happen as readily in the Canadian Zoo or the American Zoo, as at the Canadian Niagara or the American Niagara. It would be made to appear that so long as the watch or its keeper were on the American side they were safe from tumors, but so soon as they passed the boundary then a tumor appears in the man or the watch.

The possible "hygienic conditions" that would assist in breaking the main spring would be as to whether it had a vegetable or an animal oil lubricating the joints, whether the oil was too thick or too thin, whether the oil contained dirt or was antisepticated before going into the make-up of the watch or not. It is possible that this oil might contain a microbe or a germ which would enter the economy of the watch, per the oil, and through his multiplications eat the contents of the spring and weaken it and thereby cause it to snap.

As to "previous diseases," I cannot see how another spring that broke six months ago in the same watch would have anything to do with this spring's breaking. What is it that determines the time between breakages? Does time enter this equation, or is it the quality of each spring that determines where, when, or how it will break?

The possibilities of accusing something else for the breakage of the spring could be endless, but *why* accuse something outside for its internal condition? These comparisons are far-fetched and uncalled for, but I add them to show that man and machines are machines and as such have a specific latitude of adaptability, and *if* it is the lack of that which makes a spring break in the watch or generates in man a tumor, then those are the conditions we want *to know*. What is it that determines *when* and how those "has beens" will be the "to be's" and where those changes, from the normal to abnormal shall take place?

We considered *each "cause"* into special headings and have dealt with their inequalities. Medically and osteopathically speaking, no *one* cause is applicable to all condition equally and without favor, no one cause has been elucidated so clearly that it can be proven that all diseases, regardless of name or character are but variations of quantity and speed, no one author *is specific*. Dr. Quain makes statements, then withdraws them. Rather than have medical monopolistic causes the Chiropractor prefers *one* that is specific and exact.

Under Tumors, *Quain* says:

"Definition—In the broadest sense of the word, a tumor signifies a swelling, and must, therefore, include conditions so far apart as a phantom tumor, a hypertrophied muscle, an abscess, a

hernia, or a cancer ; but in its more restricted sense its application is confined to a swelling caused by some form of new growth."

"A. Tumors composed of a normal tissue of the adult human body, or of such a tissue very slightly modified.

1. Fibroma, hard and soft, including Keloid.
2. Lipoma.
3. Chondroma.
4. Osteoma.
5. Papilloma (warts and corns).
6. Adenoma.
7. Lymphoma.
8. True myoma, including Myo-fibroma.
9. True Neuroma.
10. Angioma.
11. Lymph-angioma.

"B. Tumors affecting some form, consisting of some modification of embryonic connective tissue: i. e., the Sarcomas.

"C. Tumors consisting of a modification of epidermic, epithelial and secreting—gland structures, such as Cancers.

"D. Tumors consisting of an inflammatory growth—simple and specific."

Each of these classifications is histologically and microscopically discussed, the symptomatology cannot be improved. They have *tried* to be specific, but the very sympathetic basis smatters of so much and the terms and ideas are so extremely broad that they permit of no classification. Each *general* symptom is one of a *specific* character, and each specific effect is applicable to so many diseases that analyzation is impossible.

The analysis so far deals with the causes that are not causes, and the kinds of tumors that are possible. After every physician or surgeon has asked questions and the patient answers about things that even he doesn't know about ; while the patient guesses, and so do the physicians and surgeons—then the conditions are pictured. As said before no one symptom is specific, many are no more specific hence the symptoms of this disease could be those of many other diseases. Pain is a symptom of cancers but it is also quite characteristic of corns. Excessive heat predominates in Appendicitis, as it also does in smallpox, hence the tabulation consists in guessing at many things and hitting at the balance. After sizing the field generally, then comes the discussion whether *this* combination is this or that "kind" of tumor. Physicians will debate, argue, cuss and discuss, and then not know (even after an histological examination of a section of the tumor). You have as much latitude in looking wise, pondering, and finally guessing, as they. After they have guessed, then proceed to suspect which one of the many "a cause" produced it.

Having ascertained causes that are not causes, kinds of tumors that are questionable and conjecturable to the limits of conjecture, having imagined a cause for this case ; then let us throw aside what

little common sense we still have and indulge with me while *Quain* states what *treatments* are given.

"Fibromata can only be treated, if interference of any kind be necessary, *by complete removal*, the nature of the operation depending upon the position of the growth. If completely removed they have no tendency to recurrence."

When your nose is removed you could not breath *thru a nose*, when your tongue is gone you could not talk *with a tongue*, permit the thot that when the eyes are absent you are eyeless, when your stomach is minus you could not digest *with the stomach*. We can even consider it as bearing the semblance of truth that with the appendix gone you could not have *appendicitis*, so, also, that with certain tissues cut away, where formerly existed a tumor, that it would be impossible to have a tumor *in those* tissues that now rest pickled in alcohol. "The nature of the operation" does not depend upon how you get at it, but from which way you cut tissue. It is obvious that there cannot be a "tendency to recurrence" for appendicitis in an appendix that is absent, but many is the case where all the same symptoms are present; so much so, that the "appendicitis" is operated for, three and four times, and other tissues besides the appendix *are* removed, even tho the appendix was removed in the *first* operation. We can have a tumorous combination of symptoms in tissue immediately underneath, over or on each side of place from which a tumor was cut. This demands the excuse that "all the roots were not cut out during the operation." As all tissue cells have the same elemental functions regardless of location, it proves that if *the same* pathological combination of functions exists in the heart as in the appendix the condition then existing could be named appendicitis even tho the effects are not in the appendix—the condition would probably be called "heartitis." It is the condition plus location that is named, and conditions are conditions regardless of where they are.

You note that a "Fibromate" is cut out and this is the "treatment" resorted to. Where do the theories of "age, sex, occupation, previous disease," etc., center? If "cause" does not enter into the treatment, why consider it? If medicine had been shown to be of prophylactic value, this operation would not have been needed. If "unhygienic conditions" caused this disease why not *reverse the cause*, thus obviating the effects? Reversal of cause reverses effects. This is indisputable. Cause produces effect, therefore (reasoning medically) cut out the effect and forget cause. "Sex" causes tumor, therefore operate on the tumor; but you cannot cut the "age" into pieces, therefore cut out what you can—the tumor. If the tumor reappears it will be because "all the roots"—of "age"—"were not cut during the operation." "Temperament being intangible, it is impossible to remove it; therefore, cut out the fibromata. The "previous disease" being headaches, which, altho long absent, are still a cause of the tumor, they propose cutting out the tumor. It being impossible to correct the "unhygienic conditions" by an operation. "We think it best to remove the tumor." For future cases

they propose to disinfect and antisepticize the "unhygienic conditions," but for *this* case (which includes every "this case") we will remove the portion affected, hence the removal of the "unhygienic conditions" *plus* the removal of the affections. Great logic!

"Treatment of Lipoma."

"Though fatty tumors *are said* to shift their position, and ("are said") sometimes to diminish in size spontaneously, *they are not to be dispersed by internal remedies or external applications*. If necessary, they must be removed by the knife, an operation which, as already mentioned, is usually easy. It is to be observed that recurrence *may take place* unless they be completely removed."

As "they are not to be dispersed by internal remedies or external applications" and as that is the only two ways anybody could do anything, either inside or outside, and as there are no other sides, such as top side or bottom side, we are left no alternative than to "If necessary, they must be removed by the knife." That "*If necessary*"—is "necessary," for no other way *can* be considered. "Recurrence *may take place*" and as statistics show that 95 per cent *do* return, it but goes to prove that the "may" happens quite regularly, or not "all the roots are taken out," thereby showing that surgeons know but cannot do better, or they do the best they can without knowing enough; either way shows failure or incompetence to accomplish what they intend.

The appendix is a portion of the bowel and with the removal of the appendix, appendicitis is an impossibility, yet *another portion* of the same bowel can be similarly affected unless *all* of the bowel is removed. To "remove a tumor of the shoulder" means to remove *all* of the shoulder or it will come on another portion of the same region. To have a tumor in one eye, remove it; equals that unless the other eye is removed, you will have a trouble there. To have a corn on one toe is to remove all toes, or you may have a growth on another toe, "for a recurrence may take place unless they be *completely* removed," and as tissue is contiguous and there is no dividing or ending line, *how* are *you* going to know where to draw the line or *where* to stop cutting to be sure that you have got "all of the roots" of the tumor? Mistakes have occurred and we believe will continue to do so upon the same premises; therefore, we think it wise to remove all of the foot so that *there will be no foot to have corns on*. Then should the same condition exist on the ankle, the locality will change, giving us an opportunity to name the same condition, in a new place by another name; and if we are accused of failure to remove all of the tumor, we can argue that we removed all of the foot tumor, what we now have is an *ankle* tumor. "Inflammation of the bowels is not appendicitis, because one is the same condition as the other, but it is in the next inch away from the first one for which we operated."

"Treatment of Chondromata:

"Bearing in mind the great variety of these tumors, it will be seen that it is impossible to sum up the treatment of them in a few words. The simple enchondromata of the fingers should only be

removed to cure deformity or similar inconvenience. As a rule, other forms should be removed as early as possible, but many chondromata spring from regions which are altogether beyond the reach of the surgeon's knife."

"Bearing in mind the great variety of" causes to which he ascribes these diseases, we can agree that to "sum up the treatment of them in a few words" would be "impossible." To take any one of the intangibles and make it tangible appears next to impossible. Of course the wonders of medicine are but half told, therefore it may be quite a possibility and I not know of it. The causes being intangible it is logical that the boundary lines of these "regions" would be "beyond the reach of the surgeon's knife." Thank goodness for the sake of future patients that intangibilities can so remain, for it is not much that today escapes the surgeon.

Under the treatment of "Papillomata" he spends some time to each detail. He prescribes the amount of each chemical as laid down by weights and figures, disregarding the weight of his patient. The book prescribes the same dose for a patient with tumor that weighs 100 lbs. as it does for a patient that weighs 200 lbs. Surely, if medicine be a science, then twice as much matter must be eradicated of the "unhygienic conditions;" therefore, the dose should be twice as large. There would be the same "age" in twice as much matter, and as "age" is a cause in twice as much matter caused, we think that twice as much "aged matter" should receive some consideration. To make medicine a science there should be a basis, so much per the weight of the patient and then increase or decrease it according to whether they weigh more or less. On to this table add the consideration of "age"—you have a patient, with a tumor, weight 100, "age" 80 years, or one of the same age that weighs 200, or perhaps the young lady is 20 and possesses a tumor and her weight is 100 or 200. I suggest a table as follows:

Ten years—weight 40 lbs., so-and-so.

Ten years—weight 60 lbs., $\frac{1}{3}$ more of the same.

Ten years and weight 80 lbs.— $\frac{1}{3}$ more than the foregoing, etc.

For twenty years have a given standard, and then increase so much per each year, or to be exact, each hour that he is older. On top of weight and age, which should determine the amounts of the medicines taken, the table should contain a different quantity for males than for females, as "sex" has a bearing with the causes of diseases, and as medicine is "to treat the cause" let us consider them as a part to be remedied. "Occupation" should be given consideration. If he is a carpenter, modify the dose which you would give to a plumber, or if he be a hod-carrier, then change the quantities, making them different from the dose you would give the physician. If the female be a seamstress make the amounts slightly different than with cooks, etc. Therein lays the great error of patent medicines, for there one common medicine, made by the hogshead, is bottled and sold all over the world, for all diseases, all colors, races, occupations, sexes, sizes and weights. What confusion and destruction must exist, no wonder the "regulars" want to put the

patent medicine business out of commission. Man is man the world over—*except* in medicine; then we discriminate in “race” because of color. For the black man I suggest the same medicines with equal quantities plus all the other consideration, but, color it white. For the white man give him every consideration, the same as the black, but make his medicines black. This will hold good thruout the white and black families, but what about the red and yellow families? You see, we but begin to touch combinations of medicines, but they *are* causative factors and *must* be considered. It will pay the physician to get a complete list of “temperaments” and, after getting other things equivalent then add a pinch of this or that for the “temperament” you have in the present patient. Thus your physician does the question justice when he weighs “climate,” “town,” “country,” “hygienic conditions,” “previous disease,” “mental” and “moral conditions,” etc., before he prescribes the first dose of medicine in this case of tumor. To make this analysis more clear I offer the following table:

“Age”—From one hour to 110 years of age. As the physician may be called any time his tabulation must consist of your strength of resistance per every minute. As you are changing, during health, you are even changing more during disease, therefore he has task which he must not shirk; to do so would be to give the wrong kind, strength and amount of medicines *at a wrong time of your life*.

“Sex”—Only two kinds; therefore, “at 14 years, 8 months, 2 weeks, 4 days, 17 hours, and 16 minutes of age, give this boy (or girl) so and so.” The “occupation” changes with each man, hence when inquiring as to symptoms, weigh the fact that this man is a hod carrier, a bricklayer, a grocer, lawyer, draughtsman, or the woman is a bookkeeper, stenographer etc. As “occupation” is a cause, vary the medicines in quantity, quality, color, strength, etc., to coincide with the quantity, quality, color, or strength of work the person has been doing. As labor is labor, I can see no difference between the products of muscular activity, but to the medical man just *how* it is spent and to what accumulative end is of such importance that it constitutes “a cause” of diseases.

The fact that one patient is an Irishman, another a Swede, still the third is a German, and the fourth a Turk will complex the situation. Each “race” is a cause, therefore should be discriminated between.

“Temperament” (whatever that is) would constitute such a change in my tabulation that I believe I would be inclined to leave out some of the original sex tumor medicines and add some others. For instance, in the raving maniac “temperament” I would add soothing water, such as morphine, quinine and sedatives; and for the melancholic “temperament” I would add whiskey and other put-out-fire waters. I presume these things are done, but I would suggest that where they had not a lively enough “temperament” I would give something to wake them up.

“Climate” would also enter my mixture to the extent that if the patient lived in a cold country I would give something that had

warmth in it; if it were a hot location I would cool him off; if the "country" were dry I would wet his insides; if he were wet I would give him powdered blotters with which to dry his insides, etc.

The "town" would necessarily make me add one ingredient. You see the same medicine that was given for tumor in New York City could not be given for Brooklyn, as the "town" has assumed another name. Altho there is no noticeable change between Rock Island and Moline, except two sides of a street, yet the same medicine would not do in Moline as in Rock Island, as the "town" has changed, and "town" is a causative factor. Changing the name constitutes a change of "towns," hence the change in the medicines must be different. The same doctor going to see a tumor case in Moline, or on the right side of the street, must change his medicines when he sees a similar tumor in Rock Island or on the left side of the same street. The "town" cause of the Moline tumor was different than that of the Rock Island tumor.

"Hygienic conditions" are to be considered to the extent that your medicines must act as a cleanser to the man on the inside and outside. If he has not taken a bath for some time and is dirty, then your prescription must contain something for that purpose. If he is too clean, your dope must check that. This proves the necessity of close observation to make medicines coincide with the "hygienic conditions." The plot *seems* to thicken, but as these "causes" are solidified into concrete prescriptions by every physician, it is unnecessary for us to think that they scare him, for they do not. He has been taught how to weigh each, and while they seem complex to us, to him they are as so much pie.

For each "previous disease" he has had so much medicine, more or less (which quantities, of course, they guess at) left in his system and as the medicines we are to give will be more or less acted upon by the medicines given for "previous diseases" we must consider them in this prescription for tumor of today. Suppose our tumor patient of today is 50 years of "age"; she had diphtheria at 10, croup at 20, measles at 22, and typhoid at 25, corns at 30, heartaches at 35, broken heart at 37, indigestion at 40, appendicitis at 45, and the tumor at 50. We can see that it is valuable to know what has been given to each of these diseases. If we have no way of knowing, then we must *guess* at what they were and prescribe as best we can. This makes medical work thoroly scientific, for they judge of what "previous diseases" the patient had and weigh the evidence when they get the case now. As one medicine counteracts or overcomes another, we must know what to give now to overcome all the medicines in the system for years.

I know not how many different medicines are mentioned in any modern or aged pharmacopœa, but it will run into the thousands, and just how to judge which medicine to give is the mystery. One will be tried, then another until the patient dies in disgust, and just to get rid of the physician. But suppose there were but *ten* medicines, one to counteract each cause that has been listed so far: viz., A for "weight," B for "age," C for "height," D for "sex."

E for "race," F for "climate," G for "town," H for "hygienic conditions," I for "previous diseases," and J for "temperament." Then it would be but a question of stimulating or inhibiting one or the other by adding to or decreasing the dose of more "E" and less "I", etc. I suggest that medicine be made to include this formation.

Granting that you would consider every factor that assists as one of many causes which induced this tumor, let us then consider a prototype of the prescription necessary for this particular case to give to her system the medicines to reduce the size of this tumor or before an operation could be performed.

"Patient at present is 45 years, 8 months, 16 days, 18 hours and 20 minutes of "age", female "sex", housekeeper by "occupation", Yankee or white "race", phlegmatic "temperament", until things go wrong, then partakes of the nervous "temperament"; pleasant "temperament" when feeling good, but irritable "temperament" when sick; lives in "climate" that is hot sometimes, cold other times, the balance of the time it is moderate; has lived in Burlington ("town") ten years (between the ages of 1 to 11), at Sandusky, Ohio (between the ages of 11 and 11 years, 8 months, 2 weeks, 9 days), and leaving there on the 11:20 p. m. train (when 17 years old); at Montpelier from the age she left Sandusky on, and granting two days for traveling, at which time she passed thru several "climates" and several "unhygienic conditions" until she left there on the 10:40 a. m. train three days ago to come here; is now living in Davenport ("town") for one day; we will need bear this in mind, as the "conditions" have changed. We have different microbes here than there, different "climate", etc. Her "country" is America in this life, but was "Burmah in a former one, and even before that was in Egypt." "Hygienic conditions" are good part of the time, bad the balance of the time; that is, the physicians say so, altho she doesn't know the difference. Her home, I presume, gets dirty once a week; she sweeps, scrubs and dusts it, therefore we can say that the "hygienic conditions" are better once a week (on Saturday), and worse once a week (on Friday)—we presume that the quantity of each is equal. "Previous diseases" were headaches, corns, bunions, neckache, backache after sweeping, and kneeache after scrubbing, blisters on hands after dusting; fractured right femur, middle one-third in the small of the moon 14 years 8 months, 9 days and 22 minutes ago. With each "previous disease" remember that "unhygienic conditions" produce disease; therefore, weigh how many times the patient was vaccinated, how many grains of antidiphtheritic serum and other "antis" she has taken. You must weigh *when* she took them and how old she was at that time, even to the minute; how big the dose was, what it contained and what effect it had on her, if any. To get all of these dates you should go to the courthouse, where all the births, ages, effects, dates and results of prescribing medicines and causes of all deaths should be truthfully on file and sworn to, thereby having a permanent record. You could look

them up, accommodating your prescription *of today* to coincide with *science*, for future actions rely upon the past. As to "mental conditions," she was fairly intelligent; one doctor might say she was an ignorant woman (especially if she asked many questions), and another imply that she was a blamed fool. She is long on medical education (especially the lack of results), as she has tried all dopes and has nothing to show for it. Has a good knowledge of housekeeping, and is a fair cook. Is good to children, wouldn't kill a fly, never was insane, altho had a chicken once that they shot because it was; a dog they owned went mad and bit two children, shot him. This could be considered under the head also of "unhygienic conditions" and "previous diseases" that were contagious, therefore is worth mentioning. As to "moral condition," attends church regularly or irregularly, as circumstances permit. Has never been a thief, prays every evening, gets some prayers answered and some, not; puts money in the contribution basket when she has it, and doesn't when she hasn't it; puts her trust in God and not in surgeons; tries to do good, succeeds sometimes and sometimes doesn't. The "etc." might include the questions of how many steps she takes before she is dressed; how much water is used in bathing or washing her neck and face; how often she trims her finger nails; how many worms, and of what kind, are in the bowels; of what color is the fæces; how often she eats during a day; whether she prefers raw meats or cooked; color of clothes that are worn, and how many, the texture thereof; how many hairpins it takes to hold up her hair; the color of the urine, its quantity and chemical relationship with the fæces; how much sputa is coughed and how many legs the germs have that are in it; how many are in each square inch of her property; how much water does she drink, and did it come from a well, river, whether it has been doped or not to kill the germs, etc., etc., without end. For such conditions added (getting an exact record from birth to this minute) prescribe—and then go on and do it—my imagination is far too short to comprehend such a mass of intangible evidence.

"Treatment"—Inflammation of the nævus generally leads to a spontaneous cure; *nature then suggesting* one of the best methods of treatment at the disposal of the surgeon, namely, the injection of the tumor with some suitable irritant, such as carbolic acid. In adopting this line of treatment, it must be remembered that *a danger* exists of the irritating fluid entering a larger vessel, and by passing to the heart and setting up coagulation, thereby causing instant death; this may be guarded against by the application of a temporary ligature. Other recognized and useful plans of treatment are the following: The ligature, pressure, the supplication of caustics, and especially fuming nitric acid, electrolysis, puncture with the actual cautery and complete excision of the mass. The last unavailable situation affords the most speedy cure, and often leaves the least conspicuous scar.

To a tumor, add inflammation; as a result, "nature" suggests

a cure. Physicians have had tumorous patients and they have followed the process mentioned, but *how* could *they* know what or how? *what* was the process, *what* was the change, and *how* was it brot about? He does not state that "nature" suggested her *own* cure, and then performed it without the extraneous aid of man; he does not imply that the stimulant was a suggestion to "nature" and there was something there *to be* cured. Man saw a tumor, man adds an "irritant," the stimulant woke "nature" so that she saw the tumor; then "nature" insomuch conceivable form, suggests to the surgeon the best method of treatment. Great is "nature," but it appears insignificant at some times when great at others. "Nature" did not know what was best, in fact I presume did not know that that tumor was in a body of her own making, until man, in a peculiar "suitable irritant" manner, notified her of the fact. Granting that nature" was so ignorant of the disease, yet she was intelligent enough to suggest "a *spontaneous* cure." "Spontaneous"—coming from within, without anything on the outside impelling it. Here we have man adding something to tell "nature" what to do without the aid of man. Peculiar how it is possible to mix things up.

Man stimulates the tumor. The stimulated tumor stimulates "nature." Stimulated "nature" suggests to the surgeon what to do: viz., "the injection of the tumor with some suitable irritant." If "nature" suggested, then she must know what to have suggested, i. e., the "suitable irritant"—"carbolic acid." How did "nature" speak the words "carbolic acid"? Did she or did she not? Carbolic acid is *not* a natural product, and "nature" only knows "nature," natural objects work toward natural objects. An angel and devil never work together. Good and bad are bad companions. It is hardly conceivable that "nature," working *toward* perfection—the betterment of the human race—would suggest that devilish, man-constructed and man-made concoction of "carbolic acid." "Nature" does not know nor recognize "carbolic acid." Peculiar that she should suggest it.

"In adopting this line of treatment it must be recognized that *a danger exists*" of killing the individual. "Nature" recognizes that "Nature" is *not* naturally a capable personality, hence suggests "carbolic acid" for man to use to kill herself with. "Nature" tells man to get an axe and cut the neck for all it will stand, but stop just before you get "dangerous." "Nature" suggests one of man's dangerous mixtures which will kill "nature's" actions in a human body just for the sake of removing a tumor. If this Dr. would have permitted "nature" to suggest but *one* dope we would have passed it, but *she* suggests eight treatments that *this* man knows of. Other physicians have other suggestions of "nature"—do they rely upon the statement that "nature" has suggested them all? Suppose the patient dies under some of these dopes or surgical means, does "nature" suggest death? In a case of an abdominal operation for tumor and the patient dies, I suppose they would argue, "We removed the patient from the tumor and as the

tumor could not live without the body, they both died, at the suggestion of 'nature.'"

"Treatment of Cavernous Angiomata. The treatment must be pursued upon the same lines (as suggested by 'nature,' we presume) as that for the simple forms of *nævus*. But injection is a much more dangerous proceeding on account of the large size of the vessels, and excision is apt to be accompanied with serious hemorrhage, because of the enlargement of the vessels in the neighborhood."

While quoting briefly the treatment of tumors, we have received nothing encouraging as to *the final outcome*. He states frequently that "nature" suggests something serious and dangerous and once did suggest "one of the best methods at the disposal of the surgeon," yet no method or manner of *cure* has been spoken of.

The next question is from *Shoemaker's "Diseases of the Skin,"* and under Tumors we find:

"Treatment—*Lupus Vulgaris is a stubborn and troublesome affection, sometimes resisting the very best treatment in the most skillful hands.*" This author has not referred to "nature," but we even do not know what it is that *resists* "the very best of treatment" unless we must conclude that "*lupus vulgaris*" resists the treatment. What resists what? Why should this be? Does a hungry boy eat bread and butter? Does a thirsty person drink water? Does a tired adult sleep? Would a busy man find material to act upon? What you need do you get it? If this disease needs the particular treatment in question *would it not welcome it?* If "*lupus vulgaris*" "*resists*" "*the very best of treatment,*" conclude that disease has more sense than treatment or the person who administers it. Has a disease sense, reason, and does it compare good and bad qualities of things? If a disease reasons, why should insignificant and helpless man aim to remove it by devious methods? Would it not be well to listen to the "*resists*" of the disease and give what is wanted?—does not the body fatten upon its needs? Herein lays a "nature" lesson for the physician: rather than offer resistants, better to offer welcoming necessities. Can it be said that the physician finds what *is needed?* Hardly, for everything offered as a solution of this disease—tumor—is dangerous and will ruin the life of the individual.

"It required both well-directed and persistent measures for its successful treatment." This disease is a "stubborn and troublesome affection" and it resisted "the very best of treatment in the most skillful hands," then would it appear reasonable to think that persistency and "well-directed" "measures" would help the matter any? If this sentence were remodeled it should read, "It requires both well-directed and persistent measures to make *more manifest* the resistance spoken of. The disease is 'stubborn'—it 'resists' everything at the hands of 'the very best' men, but keep at it and it will be a 'successful treatment.'" If the patient lives long enough he will overcome the resistance to the "treatment," hence he dies to get well.

"In the first place it is important that the hygienic surroundings should be suitable and in the best possible condition. The patient should be properly clothed and the sleeping apartment well ventilated. Bathing, active or passive exercise, plenty of fresh air and sunshine, and all other hygienic measures that add to general health and vigor are of great value. A change of climate, also, if practicable, will often assist *in causing* some of the most obstinate cases to yield eventually in a most satisfactory manner. It is essential to employ both constitutional and local treatment at the same time, the former to act against and remove the source of the disease, and the latter to destroy, or at least to cause to disappear, the existing lupoid tissues. Many contradictions exist on this paragraph. We will study them.

As basis we run the gauntlet as heretofore with the many various causes, none of which will nor could be "*a* cause" because of the greater contradictions ready and willing to refute every attempted application. Dr. Shoemaker believes in "hygienic surroundings, proper clothing, active or passive exercise, plenty of fresh air and sunshine," etc. Where is the average well *or* sick man that does not do all of these? Suppose we assume that this individual was well up to five years ago. She had all of these things in her home, she has them yet, never has she been exposed nor has she lived a life which opposed all of the above, and yet she had a tumor. When this patient *did not* have a tumor her home was surrounded with "hygienic surroundings, proper clothing, well ventilated sleeping apartments, bathing, active or passive exercise, plenty of fresh air and sunshine." Now that our patient *has* a tumor, we ask, "Have any of these subjects or conditions been absent in your life?" The answer is, "I have had them all the time." Suppose we look to the sanitariums, the hospitals, where all of the above is in existence and even more, where patients go with tumors to get well, and yet the presence of all these does not cause tumors to disappear. As many go the path of operations with this knowledge as before without it. These states "are of great value" only to the extent that they deliver some good to the patient needing them. If all the above were present when the patient was well and later the patient became sick, how could its presence be "of great value"? Take the given case that has a tumor removed at the hospital. Before she can get away another tumor has grown next to the same place? Did that come because she had disobeyed some principle, or because any were absent? If the patient got sick again we conclude that the hospital was not thorough in its practicability or else the theory is wrong—which? No, they had nothing to oppose such at the hospital. Much of the above is "of great value," yet not of sufficient consideration to reduce this tumor one whit, for has she not lived that life ever since she got sick? To argue that the absence of these produces tumor is to imply that an addition *to* these will reduce it, but did it? Does it with the hundreds who go to places where such conditions, ideally expressed, are to be had?

Visit the slums of a city, where dirt, filth, cheap and poor clothing, and either very little or too much of it abounds; where a mass of twenty people will crowd into the same tenement; where only the poorest of ventilation exists, where it is almost unknown, etc., and do you find the greater percentages of tumors or any other sickness in that neighborhood? I refer to the ghetto of New York. Do you find tumors in every person because "conditions are favorable"? Much of this twaddly talk sounds well and is pleasant to listen to, but facts are facts and must be boldly faced.

"The former to act against and remove the source of the disease"—so far the cause of this disease has been age, climate, town, previous diseases, etc. Does he mean that we must remove the town from this patient to get her well? Must we remove her age, her climate, and give constitutional treatment to take her from these things before she can get well? If we remove her from these what have we left? These are the undisputed causes and to remove them leaves practically nothing. We cannot remove her color, her sex is beyond our power, and I am sure to introduce a removal of any of these would mean to offer more "resistance" than she does to the treatment. Must the female sex be made over into a male one; must we reconstruct the weather especially for her purpose and leave it bad for all the rest? It is good for 999 healthy ones, but we must alter it for this one sick person. If this is necessary, how may we accomplish it? "Constitutionally" we must remove all the causes from this person and "local treatment" is for the purpose of removing the diseases from the cause.

Having tuned the "age, color, sex, town, country, and previous diseases, etc.," to this one patient, then begin a series of treatments which will tune the disease to the circumstance. In this way we tune one to the other, although we are not through until the patient has ceased to breathe, and then we triumph. First we find *the* external cause; 2nd, we fix that; 3rd, we fix the disease; 4th, the patient dies. He does not grasp that if *the* cause has been adjusted it is not necessary to treat effects. Cause and effects medically must both be doctored. Constantly as he changes effects he changes cause, and vice versa; thus cause and effect play hide and seek. According to this argument you cause the cause to disappear *and then* cause the effects to remain, which shows that he believes that effects can exist without a cause, that a cause can exist without an effect, that a cause is the cause of a cause, that an effect has produced an effect, that a line of distinction is made between the cause and effect, that one can be corrected without interfering, changing or modifying the cause. He advises that you remove the cause; after which, the effect still existing, he suggests that you give attention to the effects and cause them to disappear; now you have cause and effect gone.

Chiropractically, a cause produces an effect as a product, and if there were no effects there could be no causes. If *the* cause *was* corrected, no further attention would be needed upon the effects, as: no cause, no effects. The effects would not be if the

cause was removed. It is of sufficient moment to say that *if the cause* of this Lupus Vulgaris has been corrected the Lupus Vulgaris could not be. Proportionately as the cause was reduced the effects would also cease. Few men are capable of reasoning from cause *to* effect, or from effect *to* cause. The world is filled with studious men who reason on cause and at other times consider effects, and *few* unite the two. They reason them separately and deal with them accordingly—thus no conclusions nor results can be shown nor demonstrated.

“Scrofuloderma.—Until within a comparatively recent period the term scrofuloderma was erroneously employed to designate all affections of the skin occurring in persons of scrofulous diathesis. It is, however, now generally admitted that the various forms of erythematous vesicular, papular and pustular eruptions that we occasionally developed during the process of scrofula are merely incidental complications, not essentially symptoms of that disease.”

I speak of the above by way of showing the classifications that exist between “different diseases.” It is the tendency of present-day clinical observers to tabulate what can be seen in the clinics, place stress upon it, omit the observation of what cannot be seen; hence they are shy the essentials necessary to unite *cause* and *effect* that I have referred to. Suppose the term “scrofuloderma” were wrongly applied—presuming that it was applied to a disease that was not technically that—what difference would it make in its relationship with any one of the many causes, such as age, sex, color, race, temperament, town, country, moral state, etc., etc.? Is John a man? Of course. Is not Andrew one also, or does the changing of the name change the color, sex, nativity, etc.? More knowledge is being sought and greater stress laid upon a name than upon cause. Grant that John and Andrew are different men, are they not the same? Have they not had a common cause, alike in each case? Men are not alike, in fact no two are alike; but this does not modify the fact that we all eat of common foods, such as potatoes, meats, bread and butter. No two people are alike, nor will they have two diseases alike; thus symptoms will never balance; but may we not have a common cause alike for a common disease? Suppose a person does not get mixed, regarding the relationship of symptoms, does that modify the causes any? Could they not be at one and a same place in each?

A hasty review of this paper has been emphasizing the value of the knowledge of *cause* of tumor. If we knew *the* cause of tumor what couldn't we do? I have searched and researched into the works of medicine to prove that they *did have* a knowledge of cause. Surely they have not plodded thru time and discoveries without knowing that most essential attribute. My search has not been in vain. Instead of finding *one* cause I found so many that I was lost among them. I reasoned upon each cause and the more reasoning given the more the value of their causes being “a cause” was lost. Men who pretended that they had “a cause” soon became dimmed to my intellect and I was groping in the dark.

Physicians' opinions were not what they appeared. They either believed in these causes or else they didn't. I reasoned they did. If they did, then they were foolish men and reckoned with penny-wise ideas. Surely there were some truthful men in their ranks, men who knew that they did not know *the* cause of tumor—I looked again and found.

"Lamentable as is the direful fact, and professionally as is the confession, it must be acknowledged that leprosy (a form of tumor—Shoemaker) is at present an incurable disease." "Prognosis always unfavorable."

Under "Epithelioma" we find: "The etiology (cause) of epithelioma is unknown. In some the disease *seems to be* due to long continued pressure or other mechanical irritation. * * * Old scars, perëxisting warts, nævi, and sebaceous cysts frequently undergo degeneration *without any apparent cause*, and become the seat of epithelioma. A predisposition to the malady *seems to* exist in some families. A family history of cancer was present in 5.7 per cent of the cases analyzed by Mr. Williams. Epithelioma is more common in the male than female sex. Old age, is however, the predisposing factor, and it is probable that the directly exciting factor consisting of some *undiscovered* changes in the trophic nervous system."

The cause is unknown; yet, without a knowledge of cause, Dr. Shoemaker presumes to offer a few theories. "In some the disease *'seems to be'*"; *can it be* that medicine and its treatment of disease is based upon a "seems to be" basis? Do doctors treat tumors and perform operations upon tumors for a "seems to be" reason? We can grant all this is only too true, for we judge of what they give by what the patient gets—"seems to be" results—fatal sooner or later—usually sooner than later. Has each practitioner a system of "seems to be's"; if so, *where is the science?* Science is the universally accepted solution of a truth. Does he mean by "mechanical irritation" that we must get a machine to "irritate" the body somewhere, or that we must place a body next to a machine and then set it running, and if the body is normal it will produce "irritation," or will there be a callous deposited by way of adaptation? Is clothing a "mechanical irritation" when it slides upon our skin? How does some clothing "irritate" some people and on other people the same clothing has no effect? If some clothing is an "irritant" maker, why does not the same kind of clothing produce *the same* condition on all? Where are boils usually? In the neck, where we have *no clothing* to produce the mechanical irritation." Does he mean that on joints more by mechanical motion and that sometimes they produce the "mechanical irritation" by moving against something they shouldn't, and then presume that we suggest to "nature" that we change the form of man to coincide with our ideas to prevent anything of this kind? "Old scars—undergo degeneration—and become the seat of epithelioma." When a boy of 8, I cut my first right finger on a lawn mower. It was severed in two places.

put together, and today the finger is good. Must I figure that some day, due to some "mechanical irritation," that "scar" will "degenerate" and an epitheliomatic tumor will be the result? Must I carry the horrors of that possible future disease on my mind? "Preëxisting warts"—I had a large one on one finger; it came when I believed in the toad theory; it left, just how I also know (by Chiropractic adjustments; of course I have a cicatrix. Will that "nævus," "wart" or "scar" some day be a tumor? It has lain idle for years. What would start it into activity? What would be the cause producer of starting a pathological condition therein at this age? Dr. Shoemaker says "without any apparent cause" it may. Can a cause exist that is not "apparent"? Are and must all causes be "apparent" to be "a cause"?

Is not "a cause" a cause whether "apparent" or not? The puzzle is to conclude that all of this can be, without the reality of the cause being known to the man who offers the solutions. Man sees effects; he reasons backwards and finds the predisposing factor, then reasons negatively that there must have been something to have induced it, but all of this spontaneously occurs "without any apparent cause." Great is the *science* (?) of known and unknown medicine.

We have heard much of the idea of inheritancy of cancers and tumors. We now have one tangible statement as regards the percentage of cases wherein cancers did exist in their ancestors. How far back Dr. Shoemaker may have gone to reach this conclusion, I do not know, nor do I care; but it is certain he did not stop at the father nor mother. Inheritance is a good excuse for ignorance, therefore it was chased as far back as was possible, for to prove his point was his uppermost object—therefore the great-grandfather and great-grandmother were not too far to prove the contention. In "5.7 per cent" we find a previous record of tumors. What about the 94.3 per cent? If it were a question of splitting hairs of 49 per cent on one side and 51 per cent on the other, or 49.9 per cent in favor of it, then maybe we could argue the possibility of a majority vote being against the man who contended that inheritancy of disease was not a fact, but when the percentage is but an insignificant fraction it is folly to argue. Take 100 cases of tumor and in five they have found that some relative had a tumor also. Immediately the world is notified that tumor is a transmittable disease—it is carried from relative to relative. Methinks that corns would bear a 90 per cent basis of existing in all people. If the same disease existing in a father or mother at some stage in their life constitutes the basis for an inherited disease, then why not say that headaches are *always* inherited, because I believe no one (who becomes a father or mother) passes thru life without them. You have 100 horses, all of which are brought to your veterinary hospital. They all have spavins. Does that Doctor ask whether the father or mother of each horse had spavin? And if he did and found only five that did have it, would you place much stock in his theory when he told you that your horse could not be

cured because his mother had given this horse this disease; but that for the 95 per cent there was some help? For 5 per cent he has an inheritancy excuse, for the 95 per cent he will find some other excuse equally as foolish. See how fallacious these theories are regarding the cause of a simple tumor?

Usually man has but one tumor during his lifetime; some cases have more, especially along the same path of one or more nerves. When inheritancy does not hold, and the patient happens to be "old" (whatever that age may be), then "old age is a *pre-disposing* factor." Contagion, inheritancy and predisposition are the three bugbears of the medical profession. None of them has been given a scrutinizing and searching analytical quiz, for none of them will stand it. Not one of these terms has been defined, nor have they analytically been taken thru the successive steps to prove that they mean what the words imply them to. I know of no person using the term, scientifically or in a lay manner, but what jumps from normal to abnormal, using the word to bridge the chasm at one jump. Neither have been defined, yet everybody *takes it for granted* that there is as much or more in it than he accepts. "Predisposition" implies everything or nothing. To say that I have a headache might imply that I was "predisposed," but what constitutes such a "predisposition"? To say that today I have a stomachache might imply that a green apple was the "pre-disposing cause," but I might not have eaten one. Where are the many children that eat green apples and do not get the stomachache? Is it consistent to argue that a patient can have such a disease *without* a "predisposition"? "Predisposition" can be a blanket charge, or when specified mean absolutely nothing. To imply that I have a tumor and then say that my body was in a "predisposed condition," making it possible to have a tumor, is the explanation offered as a cause. What *caused* this predisposed state? "Predisposition" could include anything and everything, from the things we eat, drink and breathe to every ache and pain in our body. But why can some have "predispositions" for everything and others not? To merely say that a sane man cannot think because he is insane and then say that he had a predisposition to the inability to think and blame the insanity for it, does not explain the cause of the insanity. Lawyers are noted for their legal technicalities and dodges, but might we not make comparisons? "And this is probable"—does this *thot* imply any *certainly*? It may be and it may not be "the directly exciting factor." The grass grows; maybe it has and maybe it has not life. "It is probable," implying that it might *not* have, "some undiscovered changes in the trophic nervous system." Can it be possible that the "changes" of the nervous system are not known? Can it be possible that physiology is *not* an exact science? We look into the pages of Kirk's *Physiology* and he states what "trophic" means, how it is found, what means are necessary to find it, just what changes do take place. Explanations follow with the detailed data—all cut and dried. More than this is not necessary, according to physiologists. Is it not true that what

we are taught to be the last scientific word on this subject is but the first smattering ideas? Why not state in the books that when a medical student graduates he will know that there are some things he *thinks* he knows but is not certain? Can it be that we raise a question as to this function which is "undiscovered" in such an important disease as tumor? Some absolutely unknown, unseen, "undiscovered change in the trophic nervous system" begins to do something in some unknown manner, and the unknown, the non-entity, soon grows a tumor—the product. Which end do the Doctors play with? The known or the unknown?

"The view has been advanced that carcinoma in all its varieties is of bacterial origin. If this *theory* were demonstrated it would furnish a *rational* explanation of those cases which are met with from time to time and which excite suspicion that cancer may be transmitted from one individual to another."

To imply "bacterial origin" means that bacteria are a cause. Are the germs the "undiscovered change in the trophic nervous system"? If *this* theory were demonstrated, as yet I have seen no theory that has ever deduced in what way germs were a dominating factor in the cause of disease. Can any "theory" ever be a fact? So soon as it leaves the realms of "theory" it becomes that much less a "theory" and that much more of a fact. No "theory" can ever be a "rational explanation"—a fact, tho, can be demonstrated, therefore *is* "rational." I know the argument has been offered that microbes tear tissues, incite riot with your inners, that inflammation is the result and tumor or cancer a by-product; but this argument will not stand analysis. Whether cancer or tumors can be transmitted from one individual to another is purely a "suspicion." In what way would germs be transmitted? Must one person pass a slice of tumor containing germs to his son to have it "transmitted"? If the germs could get from place to place without the medium of transmission other than their own propulsion or locomotion, then could not the germs be a first cause *in each individual* and we not need carry the additional thot that they must go from one neighbor to another hunting for victims that were "predisposed"? If so, "this theory" of transmitting "from one individual to another" would be a "theory" and could not be demonstrated, the germ would be entirely to blame. But this "theory" could be analyzed until it would be the meanest thot that you can conceive that man would think, and then it would be but half touched. (See Vol. 5, Lecture on "Are Diseases Contagious or Infectious?")

Under the treatment of Epithelioma, he says: "Suitable diet is of the utmost importance. Bread, milk, eggs, vegetables and fruit may be freely eaten, but no meat should be allowed for several months." Tumors are histologically composed of a surplus of tissue cells; i. e., more tissue cells are in one place than is needed to keep up the wear and tear of the growth of the body, hence "a tumorous deposit." Does *meat* make this condition? It takes force to develop cells. Has *meat* more force, when assimilated, than vegetables? Will one expand more cells than the other? Does

"meat" make tissue cells, whereas "vegetables" do not? Is it not true that for strength and endurance the vegetarian can outlast the meat eater? If we are to reason from the tests given by vegetarians, one who lives on vegetables and fruits would have more strength than meat eaters. Does meat make meat? If so, do not vegetables also make meat? A person could eat meat and meat alone, vegetables alone, or have a mixed diet, and gain or lose in strength. It is unnecessary to restrict a person from one or the other to reduce a growth or by so doing to think that the growth would diminish its size. If eating meat produces tumors, then everybody that eats meat must have a tumor. Ninety-nine per cent that eat meat have no tumors. A person who does not eat meat could not have tumors. Those who ate meat and had a tumor would decrease the size of the same when they left off the meat and resumed a vegetable and fruit diet. But *is this so?* Do vegetarians (in a broad or restricted sense) have tumors? We would be prone to say no, by the above advice, but have they? Persons who live on vegetable diets and those that have a mixed diet have tumors without discrimination. What does this lead to? When the meat is left out the tumor decreases in size? No.

"Medicinally, morphine, alone, or in combination with atropine, must be resorted to *in the later stages of the disease*, when the pain becomes severe." We have seen advanced many "theories." If they were tested in cases and found to be efficacious in their application it would not be necessary to let any case of tumor grow to "the later stages of the disease." This is in evidence as proving the application that it would not be necessary to let any case of tumor grow to "the later stages of the disease." This is in evidence as proving that the application of the previous "theories" does not prevent the growth of the tumor.

"Dr. Herbert Snow has found that a combination with antipyrine greatly enhances the effect of morphine in these cases and enables it to be given in smaller doses. Jamaica dogwood possesses considerable efficacy in relieving pain, and may be used whenever possible as substitute for opium, being free from all effects upon the stomach and bowels." We grant that these and other drugs (and each physician has his favorite) does relieve the pain; does that prove that "*a cause*" had been established and that complete or partial recovery is a consequence of their application to it, or does it more than ever prove their *inefficiency* in such cases? "Considerable efficacy." How much may be understood to constitute a "considerable"? If *the* cause is found and adjusted, it appears that it would be impossible to have *any* effects left, hence an adjustment of its cause would be of ABSOLUTE "efficiency." The medicine intended for the tumor on the jaw must enter per the mouth and stomach en route to that jaw, hence the stomach gets the first crack at "the nasty stuff" and plainly shows its disgust by "being free from all effects upon the stomach and bowels." Some medicines will "affect the stomach and bowels" more than others, hence the suggestion that he gives. The medicine that must

reach the tumor with a resisting power of 25 per cent must start in at the stomach with good and strong 100 per cent, for it will be diluted all along its path from the mouth, stomach, etc., towards the tumor.

"There is reason *to believe* that the morbid process can be retarded by the persistent employment of small doses of the bichloride of mercury, alternated with arsenic. Poncet, of the Marseilles Hospital, reports favorable results from the hypodermic injection of corrosive sublimate into cancerous tumors. It has been stated that chlorate of potassium in ten-grain doses also exercises a *beneficial influence*." Notice the questioning thot thru these statements. We do not question the truthfulness of the purpose of the promoters, but we do hesitate to pass upon the merit of the suggestions. There are millions of ways of stifling disease; medicine is based on inhibition or stimulation, but not upon *restoration*. I do not care what will retard any disease; it is of little consequence what medicine will temporarily increase the growth of this or that cellular growth; those kinds of theories, ideas or suggestions have never *restored* a single function to anyone at any time.

The *etiology* of Sarcoma is, "Notwithstanding the *many* theories that have been advanced on this subject *the cause of sarcoma is still unknown*. It is probable, however, that a disturbance of the trophic system is the chief factor in its production." After stating that the past theories were wrong, he offers one. Must *we* conclude that his is no better than the rest? How is it known that the "trophic system" is "the chief factor in its production"? Osseous tumors exist in the healthiest persons in every other respect. They may assume such size as to make the orifice of any canal smaller, hence cause cessation of its internal and external functions, but that does not single the "trophic function." If the fleshy and lean can both be found with tumors, what does it prove? Disease is either too much or minus a function—tumor is, in this analysis, an excess of "trophic." This "theory" of "trophicity" explains nothing. We presume this idea is based upon observations which were not based upon the realization that the fat and thin can both have the same condition in same size and in the same place. Any person can be one-sided in his opinions, but it takes a level head to see two sides and then compare.

"According to Prof. Campana, the multiplication of tumors occurs through sarcomatous changes in the nerve fibres, by which the disease is transferred from one side to another. If we have a tumor in the head how can the "sarcomatous changes in nerve fibres" of the head transfer the same or a similar tumor to the feet? Having a tumor in one muscle does not reason that it would be transferred to another muscle, and if this is true, then *what* designates where it will be transferred? Presuming that we have a tumor in the muscular walls of the stomach—what determines that it shall have a duplicate in the muscles in the right leg? Is the "sarcomatous changes in nerve fibres" the determining factor? How can a patho-logical state run around and then, by accident,

light on this particular place? The stomach tumor is the size of a bowl. What determines the size in the leg to be the size of a cup? The stomach tumor came first. *What* determined that the knee tumor should appear eighteen months and fourteen days later? Is there a something which directs them where, when and in what size they shall grow, or do they *just happen*? Tumors "may be of various kinds." *What* determines this difference? "According to Prof. Campana" it is only necessary to know that there are changes in the nerves in the head producing headache, to say that condition contains within itself all the essentials to "transfer" the headache "from one site (head) to another" (toes). These are questions of vital importance and must be answered before we can believe in this nervous transmissison of tumors "theory." Dr. Campana has said the "nerve fibres" are responsible. Perhaps they are, but are they any better as a means of transmission than blood? If so, *how* do they do what has been reported. To get a tumor on one nerve in one place is no criterion as to where another will be at some other time, is it?

Nerves carry "nerve force." Do they also carry tumors? Might they not carry cancers or gallstones? Do they carry "tumorous nerve force?" What is "nerve force," anyhow, and in what way does "tumorous nerve force" differ from the normal? If we comprehend the normal "nerve force" and comprehend what changes have taken place within this "force" then we will be able to tell exactly HOW the "sarcomatous changes in nerve fibres" transmits a disease from place to place. If "nerve fibres" can carry one thing as bad as this growth, might they not also carry another kind of growth, such as carbuncles and boils? Corns and bunions are growths. Are they transmitted from place to place? Is it "the multiplication of tumors" that is transferred by the "sarcomatous changes in nerve fibres," "from one site to another"? Hence we conclude that a nerve must be a pathological one to carry a pathological disease.

"Treatment.—Has been very unsatisfactory. When the tumors are *single* or few in number the best results are obtained from their prompt excision." We could question the wisdom of this because what would be good for one would also be the best "treatment" for more than one, regardless of how many. If the tumor exists and "the multiplication of tumors" is transferred by the "sarcomatous changes in nerve fibres"—"from one site to another"—is a fact, then we might already have the second 100 tumors travelling at the time that the first 100 have been promptly "excised." Can man be a fortune teller in knowing *where* they have traveled to? No wonder he says "treatment has been very unsatisfactory." If it could be proven that a certain treatment cured one, why should it not also cure twenty? If the "prompt excision" of a *certain* tumor caused a "single" tumor to disappear then something must be wrong with the principle of its application if it could not be applied to more than a "few in number" of the same condition, even tho they were in different places. But "this procedure is useless, how-

ever, when the growths are numerous, and, of course, impossible when they involve the internal organs. Inasmuch as both sarcoma and carcinoma lead *almost invariably* to death, and are productive, moreover, of great suffering, the danger of inoculating—by erysipelas coccus—might be considered justified by a *fair* prospect of cure.” “It is thought that the coccus of erysipelas is directly destructive to the cells of malignant growths.” “It is thought”—isn’t it time that they were *knowing* about causes and their correction? Is there no positiveness in medicine or its application? “It is thought” a wise thing to inoculate a case of syphilis with the pus from a worse type of syphilis, thinking that the virus from the stronger disease will eat the weaker. “It is thot” to put a physical giant against a weakened tubercular patient in the hope of strengthening the weaker, “justified by a fair prospect of cure.” I would rather think it would kill him or at least sap what little strength he did have and hurry him to his grave. There is no destruction of the cells of a malignant growth, altho “it is thought” that the rotten cells will soon destroy the strong ones if they are brot together. In other words, the pure child should be put in contact with the poison of syphilis, thinking it will destroy a boil on his neck. Common sense and cleanliness will prompt any mother to lean against this nauseating idea, yet should the doctor advise such, cloaked under a Latin prescription, she would acquiesce without a murmur. Wonderful what gods physicians are to the minds of the superstitious!

“Prognosis is bad. Medicinal treatment is only palliative, and while rarely excision of the tumors may retard the progress of the disease, recurrence of it is usual, the patient *generally dying* from pain and exhaustion within three or four years from the first appearance of the lesions.” Supposing some city were to say, “We cannot abate the prostitution evil, we can but put on a brake and that acts ‘only palliative,’ or we can cut it entirely out, but ‘recurrence of it is usual,’” it would still look as if the real cause had not been corrected, wouldn’t it?

“Etiology.—The cause of carcinoma is still involved in mystery. The most plausible *theory* of its production is that which supposes it to be due to a disturbance of the functions of the trophic system.” Several authors have stated that their “theory” was that the “trophic system” was “disturbed,” but *how* that “disturbance” existed or what made its existence possible, was what was unknown, nor could they explain.

“Treatment.—*The cause* of cutaneous carcinoma is *very unsatisfactory*. Excision of the nodules is painful, and will not retard the progress of the disease. Internal medication seems to be equally powerless to effect a cure. Considerable relief, however, can be afforded by eliminating all meat from the patient’s diet and administering small doses of arsenic in alternation with bichloride of mercury. Morphine must also be given when necessary. In young subjects these tumors sometimes recede.”

If "excision"—"will not retard the progress of the disease" and "internal medication seems to be equally powerless to effect a cure," then what more can be done? We are left powerless from a medical or surgical standpoint.

Granted that tumors do recede in "young subjects." Why? Has the body of the adult materially changed? Has the "young subject" a something which the adult has not? Is it possible that the child can, without any medication or operation, materially change its condition? Why? Does the child do this consciously or unconsciously? What is it they do? Must we admit that the learned physician must go to the uneducated child to learn *how* to make tumors "recede"? It appears that the child understands some secret which the wise adults do not know.

"Prognosis.—*The prognosis is invariably bad.* No patient has ever recovered from this affection, and the majority end fatally within two years." Very encouraging. Wonderful is the results of years of investigation in medicine.

"Treatment of Keloid. (Choloid.) Internal and external treatment are seldom of much avail, either to lessen, remove or destroy the growth. The paroxysmal pains and the deformity resulting from the disease occasions patients to ask for relief, and then it becomes necessary to attempt some treatment that may fulfill both indications. The pains may be lessened by full doses of quinine."

I know of only two ways of giving medicinal treatment—either "internal" or "external." If treatment cannot be given inside or outside, then there is no other place to give it; hence nothing can be given in any place which will make easier, take away or even stop the progress of a Keloid. There is nothing in prophylactic or preventative medicine for this form of tumor. When the pain gets so great that patients cry for relief, "then it becomes necessary" to be driven to do something even tho against your will, and even then it is "some treatment" that you will try, well knowing that it will not "lessen, remove or destroy the growth."

"Prognosis.—*The prognosis of the disease is usually unfavorable.* It may after a time be arrested and cease entirely to grow, and yet quiescently persist during the lifetime of the patient. This, too, may happen without interference with the general health. Upon removal of the tumor, it *generally returns*, often much larger than the original growth. Spontaneous involution of the disease has been observed to occur in some cases, but such are always rare."

No use trying to tell what the future of a tumor may be. No treatment will do it any good; it may continue to grow or it may "cease entirely to grow," altho it continues to grow all the time. Peculiar, how it can be dead and yet live! Remove it by operation, and it "generally returns," larger than before. Medicines are no good; operations cause its return. What can we do?

"Molluscum Fibrosum. — *The cause of this disease is unknown.* It is *said to be* hereditary, because occasionally appearing in several successive generations." Supposing "occasionally" we should find corns "appearing in several successive generations"

(and that is more usual than tumors), are corns "hereditary"? How about worms in children? At least one hundred other diseases could be cited that would be more usual to the human race than that quoted portion above. Dr. Shoemaker makes the usual medical loop-hole, tho, by saying "occasionally." "Non-hereditary cases, however, have been recorded of its development in several persons of the same family. Instances have been reported in which it followed local irritation, but cases occur in which this cause has borne no part. Hebra found in his observation of the disease that persons attacked with it were invariably of weak physical and mental organization." As an example, Grant and Napoleon were neither fools nor physical nonentities, yet the former died with a cancer and the latter did not—both were physical giants and mental wizards on the battlefield. These men had great foreign irritation, yet no "local irritation"—"but many cases occur in which this cause has borne no part." A particular tree grew from a particular seed, altho "many cases occur in which" many of the same tree grow without those same kinds of seeds—"in which" the same seeds "bore no part."

"Etiology of Lipoma is not known—"

"Angioma. Etiology.—The cause of the different kinds of angiomata described is *obscure*, and this is particularly true with relation to angio-elephantiasis and tumor cavernosus.

"Cause of Lymphangioma is unknown."

"Treatment.—If there were only a few growths, they should be excised as soon as possible; but if numerous, the treatment that offers the best results consists in the excision of a portion of the principal nerve supplying that part of the body upon which the lesions are developed."

I have tried to be brief in quoting the etiology (?), treatment, and prognosis of the various opinions of the medical specialists' authorities—and experts; sufficiently so to write text-books which are quoted in trials and used in schools and colleges. As to their standing, professionally, no better exists. I have done this to present what they think they can do or what they have been trying to do with tumors, what they think they can do or what they have tried to do and failed. Supposing this case had been in the medical hands, would it have gone thru what we have described? This case has been thru all of this and treatments not described, and the tumors have kept growing.

Thinking that you might feel that I was taking unfair advantage of the weakness of my opponent, who did not have just as good an opportunity for defense, or that I had particularly picked some one or more books who were medical skeptics, I can but say in reply to all of this that the following comments could not be questioned in any light but that of truth. The following comments are copied from *The Chicago Daily Tribune*, Sept. 20, '09. Dr. John B. Murphy, on his return from Europe yesterday, carried the message that medical men are laying siege to the enigma of cancer as "explorers have to the north pole," and that the day is

at hand when the disease which cost so many lives will be listed among the curable afflictions.

Like the finding of the north pole, as the surgeon desired to draw a parallel, more than one man will arrive *at the cause of cancer* at the same time. In his opinion, *a period of five years* at the utmost will suffice for the medical scientists *to find the long-hunted secret of the disease. The new idea is to operate as soon as the disease manifests itself*, instead of waiting a number of months—the present method. “British Surgeon’s Discoveries.”

“Mr. Bashford, a noted English surgeon, read a paper at the congress which reviewed the work done towards solving the riddle of cancer for the last quarter of a century,” said Dr. Murphy, at his residence, 3305 Michigan Ave. *“He did not establish and he did not claim to establish its cause, but he clearly demonstrated its course and progress in which it destroyed life.”*

“Summing up all the work done in the last two decades, as shown by that paper, I think it is fair to presume that the next five years *should bring out the true cause of cancer.*”

“A *new* treatment for cancer was outlined at the congress. *It is simply the early surgical removal.*”

I grant what medical men say regarding diagnosis; they are diagnostic experts, that is their specialty, but I shall not concede one point as regards their knowledge of the cause of any form of tumor. Naturally comes the question as to the philosophy of Chiropractic regarding the growth of new tissue, not alone in this case, but any other where the similarity is towards the tumor. A tumor is a tumor, regardless of where located; hence only *one* interpretation can be placed upon the same. There are many medical theories as to their formation, cause, treatment and results, but all are meagre and inadequate to stand the crudest analysis.

The body is composed of various consistencies of tissues—muscular, cartilaginous, osseous, adipose, etc. Each is utilized to meet the adaptive necessities of the various portions of the living body. Cells are expanded, brot forward, used, and cast off. Others following those come to the front and go thru the same process. Whence comes these *new cells*? For bones we have “a center of ossification.” Muscles, cartilages, adipose tissues, etc., also have “a center” from which like tissue cells are coming to the front. In these “centers” (implying what the name means) there are contained many nucleated unexpanded cells. These can be aptly compared to collapsed toy balloons. Ten thousand collapsed balloons could be placed in a bushel basket, but of the filled, expanded kind you can but place five. You have taken ten of the collapsed balloons and filled them, caused them to mature; when enlarged they change from position from where their former home was to where their home is to be—they come to the front and become “the natural tissue cell.” In the bottom of that basket lies still 9,995 unexpanded cells, each ready and waiting to do the same as the other five have done. These cells are called “germinal cells” because they contain the structural framework for that which will be the

adult cells when expanded. Nothing more, in structure, has been added to the matured cell any more than we have added something more to the expanded balloon than what existed in the collapsed form—the material to expand them with.

Time is a factor in any consideration, and it would be unjust to leave that factor out of this most important consideration; hence we add it in building our hypothetical case—building a tumor.

Quantity is the factor which determines size. Time and quantity must be compatriots in this disease; otherwise it could not have existed.

Kind of tissue structure determines only what kind of tumor you have and where it may be; that is, an osseous tumor will never be built on muscle, etc. Time, quantity and kind must go together on all such cases. In fact, this is the analysis for many diseases. The trouble has been, in the past, that many a physician has studied kind, that of quantity in so far as he had to consider size and location in deciding for an operation; he also considered time as to when to operate; but he never joined those three factors in such an analysis of a tumor.

If one tissue cell is the normal expansion following the usage of one tissue cell in one second of time, then what would we have if three tissue cells were expanded in one second of time—two more (tumor) than is necessary. If one tissue cell, on the skin, is now dead and another one takes its place as soon as it is rubbed off, then we have a normal or health condition of tissue. What would we have if one tissue cell was dead and three came to the front at the same time to take its place—*two more* (Tu-Mor) than is necessary in the same space of time.

Hypothetically, let us state that tissue cells are wasted or utilized at the rate of 100 per minute—100 cells per one minute of time on guard ready to take the place of those just lost, and immediately behind the first squadron is another 100 ready to urge them onward, and as they proceed to step No. 1, another 100 is ready to push them on, and so it goes; a continuous line of 100's are serially placed, reaching from the place of utilization to the center from which they came. If there were 25 rows, there would be 25 minutes consumed in their utilization—one row for one minute. This is true of every distinctive kind of tissue cells in the body. Suppose the loss is 100 cells per minute; the expansion taking place at the center would be 100 cells per 1 minute of time; then we have a natural development of expansion—we have normal expression of life in all those portions to which these cells are going. According to the idea advanced regarding the automobile, the gas expands in rapidity to the number of sparks going to the head of the cylinder. One hundred sparks per minute reaching the cylinder means that 100 sparks are leaving the dynamo or dry batteries; this equals 100 revolutions of the rear wheels, considering that this one explosion means one revolution.

We make the same application here: One hundred motor impulses leave the mental dynamo, the brain. One hundred mental

impulses are being transmitted to the tissue "center" by nerves. One hundred nucleated or embryonic cells are expanded per 100 units of time. The current is compared to the sparks in an automobile. The relationships are the same. Suppose we introduce a rheostat upon a wire conveying the 100 sparks to the cylinder, what would be the result? We would have more than 100 sparks per one hundred minutes of time; the engine would work too fast and a state of excessive action results. We soon have a congestion of current per the time given compared to the results in moving over the ground. Suppose pressure exists upon those nerves or against a number of motor impulses flowing to an outer which stimulates the center to equal 200 expansive motor impulses per one hundred minutes, thus 200 cells are expanded; consequently, the place of deposition would receive double the waste or tearing-down process in the same space of time. That is, there would be a tearing down of 100 cells per one hundred minutes, but there would be a deposit, from the inside outward, of 200 per one hundred minutes; consequently, *the place of deposition grows twice as fast or twice as large, per the same space of time, as should be normal—the product is a tumor.*

Let us understand, before proceeding further, that every cell deposited in excess is *a normal tissue cell*; it is alive and of value to the bodily economy, can be utilized if there were not too many for the necessity or circumstances under which this person was living. If a housewife, it still would be a tumor, for the occupation which the person was following could not in this instance, by general housework, utilize such a surplus quantity of natural cells. It is reasoned that we can sometimes hold down a growth of this kind by rapidly working the part involved, thus causing the waste of cells to be even greater. The same would be true if this person were a mechanic and using many cells, for the 100 and the grade of time would be correspondingly shortened or lengthened. One would *need* less than the other.

We have suggested the value of electricity in connection with things mechanical. Might we not transgress far enough to quote an article having a close bearing because of the application made with man in the transmission of his currents of mental impulses? We have implied the unit thought with currents of electricity. Can we not do the same with man? Is not "current" an item in both cases? I recognize that scientists and students have underestimated the value of this, and if they did appreciate its value they failed to make the linking process which put the two together in a practical working manner. In my hypothetical case I assumed that equation of one unit of force, causing the expansion of one tissue cell, and in the gasoline runabout I assumed that one unit of electricity, leaving the battery, would be equivalent to inducing one spark at the engine; thus one unit of force moves one unit of matter. Upon this unit idea we have shown that two units of force given to one unit of matter in a given one unit of time would be equal to moving the same unit twice as fast. Man is but a mass

of force and matter, both working together in equal quantities, and both working to the same end, one utilizing the other to that accomplishment. Intelligence dominates ignorance—or abstract controls concrete, or positive manages negative, thus in various qualifying terms we imply at all times the connection of the immaterial with the material. It is reasonable to know that an equal amount of force will but move an equal amount of matter a given distance or height in a given time—the difference being, between all the mechanical problems and what man does, is, that the latter is controlled by an Innate or *within* intelligence and mechanical contrivances are induced into action by an educated or *without* intelligence.

The August, 1909, *Popular Electricity* contains "Every Man an Electric Runabout," by Agnes Deans Cameron. The article is quoted entire and comments follow. This writer has viewed reasons and deduces ideas. They are practical as far as they go. The greatest oversight is the lack of attaching intelligence. We must not overlook or underestimate that physics is one thing and dynamic force another, but in man *we have both of these, plus intelligence*. Study man as a triangle, or, if you wish to consider intelligent power as the abstract phase or positive side, and physical man as the concrete and negative side, then man can but be considered as of two elements. You are your own voltaic battery. "Every man is an electric runabout." So says Dr. Andrew McConnell, President of the Society of Universal Science, who is himself electrifying New York and Boston with the basic theory that the life principle of man is no mystic fluid, but "*electricity, pure and simple.*"

"Discrediting the idea that we live and move and have our being through some mysterious life force breathed into us at birth, and withdrawn at death, Dr. McConnell, a southern scientist, declares that the life energy is electricity generated within our bodies, applied and controlled by our wills.

"What great advantage would there be in finding this true? It would bring all the laws of life under the workings of the well-known laws of electricity. *Every man becomes at the same time his electric motor, his own electrical engineer.*

"For over a decade Dr. McConnell has devoted himself to medical-electro experimental research, with the result that he builds up these three hypotheses:

"1. *Life power is electricity and is therefore* directed and controlled by the laws of electricity.

"2. *The amount of electricity in each man is the measure of that man's health and working power.*

"3. This life electricity can be increased at will and to any extent by the individual, and so health and long life are easily within the reach of every human being.

"These contentions open up a fascinating field of thought. Especially in the realm of electricity does the wise man hesitate to say, 'This is impossible,' 'That is absurd.' The unknown of today

is the known of tomorrow. A Franklin told us that there is electricity in the air; it took a Marconi to demonstrate that this air-electricity can carry wireless messages. A Galvani told us a century ago that there is electricity in every living creature. May it not be an Andrew McConnell who shall establish the fact that we can at once make, control and apply that life-stream?

"If Andrew McConnell can teach us how to turn on the electric current and charge our batteries—we already know that electricity can decompose anything—it would appear that all we will have to do, to keep our bodily organs at their highest efficiency, will be to make proper application of this dormant force.

"Dr. McConnell disclaims having discovered much that is original, but to have assembled a mass of proof from the experiments of others and linked his findings together in a chain of scientific reasoning to substantiate his theory. Here are some of his reasonings:

"Every schoolboy knows of the experiment by means of which Galvani touched a dead frog to an electric machine and saw the muscles move as in life. Since Galvani's time numerous experiments have demonstrated that electricity contracts muscles. It is the electrical contraction of muscles which produces all movements of the body.

"Acids and alkalies cannot come together in a moist state without generating electricity. It is the union of the stomach acids and the alkalies of the saliva which makes the electricity that dissolves our food in the stomach; the stomach itself is a voltaic battery. When we say facetiously that certain hearts are reached through the stomach, we, in a half-hearted way, feebly state a psychological and electrical truth. Dr. McConnell maintains that we should be able to direct *a current of bodily electricity* to our stomach battery and so set the process of digestion merrily on its way. It is said that most of modern man's physical ailments proceed from faulty digestion. Make a man absolute monarch of his stomach and he can master his enemies and dominate his destiny. It is dyspepsia that makes suicides, curdles the milk of human kindness, and allows divorce lawyers to buy big automobiles. Give the man with the undertaker face and the rabbit-skin chest-protector the secret of sending health-giving electric currents into his little digestive system, and his dog will come out from hiding under the woodshed, his wife smile as she used to 20 years ago.

"What part does the brain take in all this? Professor Munsterberg, of Harvard, demonstrates very clearly that the brain is an electric battery of the most potent and sensitive type; that it both receives and transmits electric thought-currents.

"According to the fascinating McConnell theory, each one of us is a moving voltaic battery, insulated by our skin, hair, nails and the texture of our clothing; each organ within us is itself a complete electrical battery. The expansion of the lungs and the separation of the oxygen from the air, the whole process of digestion, the heart action, the formation and chemical changes in the

cells, the secretions of liver and kidneys, the five senses of smell, taste, sight, hearing, and touch—in fact, every process essential to life—is a simple electrical function.

"Most men think themselves more vital than a fish, yet there are many varieties of fish which give electric shocks, give them when they want to, and direct them where they will. It is not a very up-to-date man who is willing to take second place to the thunder-fish of the Nile, the torpedo-fish of the Mediterranean, or the electric eel of the South American rivers. A one-horse man is a poor specimen. A historic American, in the midst of a hot political campaign, was glowingly characterized as 'a whole team and a dog under the wagon'; yet with the power of a few electric eels at his disposal, properly directed, he would be this and more.

"It would be a poor-spirited 'human,' Dr. McConnell says, who would refuse to take hold and run the machine when a scientist tells him that, *without knowing it, he is the owner of a great, splendid touring-car, more delicately adjusted, more potent, than the shiny and expensive one that whizzes along the city boulevards.*

"But electricity pure and simple." Electricity is an accumulation of electroforuns. Each *force unit* of "electricity" is an integral of "electricity," yet no one would connect the fact that "electricity" was as intelligent as a thought. Does "electricity" circumvent obstacles, does it save or create a human or animal life? Electricity is utilized to every necessity of the comforts of life, yet this is guided and directed by the intelligence of man—it has in itself no reason. To say that the currents within man are but ignorant "electricity pure and simple" is to confuse ignorance with intelligence.

"Declares that the life energy is electricity generated within our bodies, applied and controlled by our wills." Grant that forces are generated within our bodies, does this concession mean that we make it in any ignorant form in quantities, voltage, amperage, that we think best? Were you taught in school how to "control" and create such forces "by our wills"? You were taught to put c-a and t together to form the word "cat," but were you taught to put one force unit with another and thus make a current of them, and then were you taught to direct them to definite ends, or did all of that "just happen," whether you thot of them or not? You will think I do not know what "will" is, but for scientific purposes it is not defined, therefore I must presume that you are referring to the mind—the educated intelligence which you daily use in external necessities. The intelligence I am referring to is that inside deductive and inductive wisdom—the kind with which we have no communication, nor could we sidetrack a single thot if we wished. Do we direct this self-made "life force" wherever we wish it to go and at what speed or voltage according to the necessities which we think best?

"Every man becomes at the same time his electric motor, his own electrical engineer." "Every man" is at once his own dynamo, "motor" and *in part* "his own" *intelligent* "electrical engineer." His

brain is his dynamo, its actions continue *with or without the volition of educated man*. Educationally we can direct a minute portion of the sum total of man's forces to certain motors and get certain specific results, but the balance of the body is beyond our educated minds and rests purely with the real "engineer"—Innate.

"Life power is electricity," *life* power is *intelligent* power, "electricity" is not intellectual. With this analysis it would be impossible for "the laws of electricity" to control intelligent laws of transmission and expression. Ignorance never could nor has controlled knowledge.

"The amount of 'mental impulse currents' in each man is the measure of that man's health and working power."

The paragraph commencing, "This life electricity can be increased at will," is entirely erroneous, for if it were a truth then man need never be sick or assume any phase of disease. If man is his own dynamo and own dynamic force generator, then it is true that all of man needs remodeling to conform to that principle. But as it stands, man does not generate, nor could he if he wished.

"If Andrew McConnell" could connect us with an unlimited source of power we would not need him. "If Andrew McConnell" could prove that "electricity" can be "increased at will" and "health and long life are easily within the reach of every human being," we would not need his suggestions, as *our* power, self-generated, would suggest that thought voluntarily without his assistance. As *he* got this idea, so would we.

The most practical and sensible conclusion reached in this article is an idea not Dr. McConnell's, but another's. "What part does the brain take in all this?" "Professor Munsterberg, of Harvard, demonstrates very clearly that the brain is an electric battery of the *most potent and sensitive* type; that it both receives and transmits electric *thought-currents*." See "Cycles"—elaborated in Vol. 5. I concur, excepting that the brain is more than a "battery" where forces are stored; it is also a dynamo where forces are absorbed, concentrated, transformed and expelled for transmission to all parts.

We have copied an article and commented upon the same to show that minds, other than ours, are grasping the significance of the value of considering man from a *mental current plus matter* standpoint.

Resuming our question—what name you gave this tumor depends upon *what kind* of tissue cells are being expanded—columnar, spheroidal, and where the deposition was placed, etc. An osseous excessive development is an "osseous carcinoma." If a cartilaginous growth, it is a chondroma, etc. Just how deep it may be, whether in the first or second layer of skin (if superficial), or in the first, second or third wall of viscera (if deep) depends upon whether fibres, conveying those excessive expansive mental impulses spread to one or another area, and if so, then that again changes its name. If a tumor is in the thyroid gland, it is not called a tumor, it is a "goitre." The complications which count

for much in medical diagnosing of a multiplicity of symptoms, has no value to us, because where it will begin or cease depends upon the mind of the physician observing. You can have as many kinds of tumors as you have physicians.

The case in question has a deposition of certain cells (it makes little difference which kind, for there "appears to be" or "seems to be" an osseous muscular and cartilaginous deposition), taking in, as you notice, principally the left cheek and to the left and inferior portion of the mandible. There are three prominent divisions, each of which is filled to its utmost now. The inferior one is solid and "seems to be" like so much bone, to the touch. The center is gristly and the superior soft, as you would expect any muscle to be. This growth approximately takes in the entire anterior and a lateral portion of the 4th zone; that is, the nerve fibres radiating anteriorly from the 4th vertemere spread to one viscemere, one myomere and one cartimere, placing these specific centers at the mercy of the quantities of impulses that come to them. It is the excessive number of impulses, per the given time traveling through and over the 4th zone, which is making the deposited number of cells excessive.

You ask, "How do we connect the 4th vertemere with the various meres affected anteriorly." or "How are we certain that this is the proper connection"? The exact location is accurately ascertained because we have previously traced cases of this character in which the nerve fibres leave the spinal column as one trunk nerve and spread like the ribs of a palm fan over the regions described. Advancing a bit of knowledge, based upon previous knowledge of like cases, I would say: "We will, in this case, have a subluxation between the 3rd and 4th cervical vertebræ, the pressure being exclusively on the left side. (The tracing was made, and proved to be as the prophecy was made. Photographs have been made and recorded. The same appears in Vol. 6 on 'nerve tracing,' of this library.)"

We have already described the tumor in a way that medicine could not, at least, never has done. The *etiology* of *any* type of tumor is not unknown to the Chiropractor. He knows the cause of *every* tumor, regardless of where located; internal or external, deep-seated or superficial, fibrous or not, osseous or muscular, etc. Having established our philosophy of the *why* of tumor, it is easy to trace the location of where that cause is, by knowing where the effect is. Instead of having 100 causes and then guessing at which one will apply to this case, we have but ONE cause which is accurately applied to all, regardless of kind or location. This simplifies the correction or reduction phase.

You are wondering about the Chiropractic *prognosis* of tumor and of this case in particular. We have shown you by quotations from medical authorities that their treatment was "only palliative." The Chiropractor can say with assurance that here is a case which, under proper and careful adjustment, wherein the subluxation is correctly adjusted and the pressure upon nerves gradually removed,

thoro function *will* be restored. We know the vertebra has been replaced and pressure or impingement does not exist upon nerves; that they then have a normal carrying capacity of the requisite number of units of impulses per the time, hence the flow. Once we have restored a normal number of tissue cells to coincide with the loss peripherally, per the given time under consideration, and restored the currents to power which performs these actions, from the dynamo (brain) to the motors (tissue centers), the responsive action will be coördinate and reduced in size by the reversal of the manner in which it was formed. The tumor, in general parlance, would be removed. Then we have but to permit a given time to *gradually restore* or reduce the size as described later.

There is no reason why, under the application of that philosophy to physiological currents through a material thing like this tumor, it cannot be entirely reduced in size by the reversal of the manner in which it was formed. The tumor, in general parlance, would be removed. "Removed," because the public understand that term better, although to be educationally and physiologically correct, I should say this tumor will be reabsorbed, resorbed or restored. By resorption, I mean that the adjustments must first stop the accumulation, then by intellectual adaptation the gradual absorption of the growth, which will occur in half the time, relatively speaking, that it came, will take place.

If every living being must have life to live and that life is a form of intellectual currents passing through the medium through which expression takes place, then you can comprehend why an animal is the same as man. Trees, birds, plants, fishes—they are all alive and living according to the same schedule, of different quantities of each. The philosophical basis of Chiropractic is so universally correct that we do not need to consider age, sex, color, temperament, town, county, hygienic conditions, etc. A tumor is a tumor and is built upon the same plans in the black man as in the white, in the yellow as the red races. Sex makes no difference and would be discounted by every true Chiropractor. Height or weight, waist measurement; fat or lean, wet or dry, hot or cold. high or low, African or American, living in a swamp or in the "healthiest climate in the world"—all would be discounted and would receive no attention by the Chiropractor who knows his philosophy and adjustment.

Supposing the Chiropractor were blind, could not see that the case in question had a tumor and the patient refused to state what was the trouble and would not permit him to examine her body to hunt for growths, and his science was put under the most severe test; that of restoring that tumor to normal, and yet he did not know there was a tumor—*could he do it?* The palpation of that spine would have detected a subluxation in the 4th cervical; this he could find as well *without* the knowledge of the tumor as another student *with* that knowledge. He could have adjusted it according to its kind and would have restored every function to this individual as well as the person who could have seen and could have

known what he was adjusting for. The Chiropractor who knew could not have returned more function than the person who did not know. It is not necessary that he know a tumor was on the cheek—all that was necessary was to know where the cause was and how to correct it. With the best knowledge in the world of these causes, no Chiropractor can tell *what* disease is at the periphery. As he is blind, any definite statements he might make would be but guess work, and of that there is too much being done outside of our ranks. Wonderful? No. *Just science.*

All disease can be compared to a wagon running down hill, the faster it runs the greater the momentum. Disease progresses with a speed which usually becomes more rapid. Momentum is a thing to be dealt with in man the same as in stopping the runaway buggy or a machine that needed reversing. No person could stop the buggy on the spot, nor the machine upon the second the command is given. The *power* can be stopped, but the machine must cease its momentum, reach a standstill, before the reversal can take place. Many patients can see, feel and realize the growth of tumors. They expect the Chiropractor to remove the tumor the same day they commence adjustments and are disappointed and discouraged if he has not caused its decrease in size as fast as the surgeon who can cut it out in one hour. In acute growths we will do this, but in chronic cases never. First, stop the momentum, the rate of speed with which it has been going forward; when we have reached a standstill (which may take weeks or months) it is time to begin the slow and steady uphill pull.

I stated that we pulled uphill quicker than we went down; while this is contrary to the principle of gravitation, yet it is true to the law of intellectual adaptation. I do not mean to imply that if this case has been existing four years it will take two years of adjustments to get well, but I mean to imply, in a hypothetical case under adjustment, instead of 100 cells coming forth per one hundred minutes (which is normal, if all else is normal), there will be probably 50 per minute until the surplus, consisting of thousands, are utilized at the rate of 50 per minute. The process of absorption and improvement will be a gradual one; there will be a partial cessation of expansion, and a utilization of what is already there in excessive quantities. By so doing the *reabsorption* is gradual and cell by cell (in size and quantity) will the tumor decrease.

Another process, which occurs when the tumor is large and where the excess material is not worth while waiting to have absorbed, the mass of tissue decomposes, beginning at the core and sloughing off in masses. Intelligence has the power of doing this if best. Which of these processes will take place is within the province of Innate Intelligence. In either instance the change begins in the core and works outwardly as that is the center from which all expansion and diminution commences.

I stated that I would trace this case—I shall start at the effect and run to a cause, after which we will begin adjustments, and I wish you to all watch the changes taking place.

The result of the tracing is—"We find six prominent branches of the 4th newromere leading to between the 3rd and 4th cervical vertebræ on the left; each fibre gathers at a common meeting place which is directly posterior and inferior to the ear; there all branches unite as one nerve trunk; from there its path is the point of subluxation and pressure; which is posterior, left, inferior—P. L. I."

No explanations have passed between this case and myself in private or public at any time. I have carried my explanation, traced the tender nerves, found the subluxation *and cause* of this disease; have had the patient get ready for adjustment, and I have not asked one question. I do not know how long this case has been standing, the symptoms of the case. I have no idea of the particular pathological characteristics nor by what name physicians have called it, and I don't care. I know not the opinions of others as to what they said it was or would be, or what they said the cause was or the prognosis of the case, but as soon as any Chiropractor saw this case he would work out an analysis, localize the particular subluxation and proceed to give an adjustment. No questions need be asked. Give us time to adjust this subluxation, restore cyclic currents and this individual will have a jaw and cheek that is normal. Wonderful! Just common sense, that's all!

Symptomatology of the Alimentary Canal

The specific, pure, unadulterated, philosophical Chiropractor *analyzes* all that he comes in contact with. I shall, tonight, carry the alimentary or digestive apparatus, or what other name you may see fit to call it, through this partition process, which is the reduction of organs, tissues, functions, etc., to their component, functional relations.

The alimentary tube is that hollow concavity from the inside of the lips of the mouth to the external lips of the anus. Anything in between is a portion of it. Start with the mouth or buccal cavity; the next is the œsophagus; third, pharynx; fourth, stomach; next the small intestines; and, following that, the large bowel. There are, at basis, six "primary" viscera. In addition, there are "accessory" viscera (why so termed with this misnomer, I do not know). "Accessory" conveys the thought that it is something which is occasionally used, but is not essential; is similar to an ornament; can be dispensed with. The "accessory" viscera are as necessary in the performance of the functions of these glands as are the original organs. The *essential* glands are: viz., parotid, submaxillary, sublingual, liver, pancreas, and spleen. The alimentary tract *alone* is not sufficient to bear or express all functions necessary. The one cannot maintain itself without the other, nor the other without the one.

One more, which is not enumerated by any anatomist, must be added—Serous Circulation. Without the latter the buccal cavity would be dry, the œsophagus parched, or would cease to be pliable; the stomach would be as so much dust; the small intestine and large bowel could not act nor perform functions; none of the glands enumerated would be a gland in function, although such in structure, were it not for the Serous Circulation which keeps them united. Serous connective tissue gives to all glands its juices which are soon converted to the oil for which that gland is noted. It is the liquefier; that which holds dry substances together in wet form.

Chiropractic is a science of the *cause* of things natural; not a science of symptoms; not a science of how to treat them; not a science of how to chemically analyze the constituents of the human body (normal or abnormal). But it is the science of how to analyze certain conditions quickly back to the cause, and we only utilize conditions, in so far as they exist as a guide-post or mile-post on the road, telling us purely which way we must go.

This is why I say to one who is a Chiropractor (there are different types of Chiropractors—some who believe in having a stretching machine beside them; others a hammer and mallet, etc.), a pure unadulterated Chiropractor. "Remember the coördination

between Innate and physical and analyze everything you come in contact with." Everything that a Chiropractor meets in his daily life he analyzes.

In what sense do we use the word "analyze?" We will read *Webster's* definition and see if it does not carry the meaning as given.

"Analyze: To resolve into its elements; to separate into its component parts or proportions, for the purpose of an examination of each separately, etc.

"Analysis: A resolution of anything, whether an object of the senses or of the intellect, into its constituent or original elements; an examination of the component parts of a subject, each separately, as the words which compose a sentence, etc. The tracing of things to their source, etc., etc."

I cannot see why they should name some viscera "primary" and others accessory. Suppose we step into a factory and a man shows us machinery, telling us that these machines are making the product for which the factory is famed, yet he adds, "I want to call your attention to an accessory machine here on the side which is making the oil to lubricate the machine, without which it would not turn." In that event this other machine, instead of being purely accessory, becomes essential.

The word "accessory" as defined by Webster, conveys the idea of something that can be dispensed with; that is not necessary. The function of the entire Alimentary Tract is to receive food in the raw and take from it nutritive elements. In the accomplishment of this duty it utilizes chemicals which are brought to it from these glands on the side. If it did not receive these chemicals, there would be nothing doing in that entire alimentary tract, but it is because of the union of these internal chemicals with the external that we get good; and instead of being accessory, the system cannot do without them.

I have enumerated some six primary organs and six *necessary* glands and now connect these by the only means possible, an oversight for hundreds of years—serous circulation.

Specification of the elementary tissues of which any one of these is composed is our next step. They are seven in number (for future reference they will be spoken of as "A"): First, muscular; second, serous; third, lymphatic; fourth, adipose; fifth, arteries; sixth, veins, and seventh, nerves.

Take the stomach as an example. It has more or less of each of the seven tissues. You may carry the same comparison forth with any organ or gland of this tract.

So far analysis has brought forth the viscera and tissues of each. Investigation proves that these tissues have the following functions (to be known as "B"): First, contractility; second, trophic; third, calorific; fourth, secretory; fifth, excretory; sixth, reparatory, and seventh, reproduction. Eighth, expansion; ninth, reproduction.

You will notice that this list is headed with "motor." Every function expressed is motor in some character. You cannot enumerate any expression of a function but what its fundamental is some mechanical action. Movement is motion and this is motor mental impulses expressed. Motor is subdivided into many classes and each is named according to what character it maintains.

Were we to study the world we would find it divided into two things—energy and matter. Matter can take a multitude of forms; energy depends entirely upon what matter it is traveling through.

Examine the first issue of "A"—muscular. It is composed of fibres. Muscular fibres must have motion, nutritive impulses, heat, secretion to and excretion from, circulatory impulses; and should that muscle, in part or whole, be strained or fractured, as sometimes occurs (which is nicely illustrated in *The P. S. C. Osteological Studio*), it needs reparatory (REPARATORY IN THE SENSE THAT EXPANDED CELLS, PERSONIFYING THE EIGHTH FUNCTION HAVE COME FORTH FOR THAT PURPOSE), as each fibre is a section and each cell of a fibre is a living unit.

The only way that man can prove that he is a unit is by proving every cell a unit and every protoplasmic particle of a cell is a unit, because it is only a collection of small units that makes a large unit.

Nerves must have the capability of being moved; they have nutritive substance to be maintained; must have heat, secretion and excretion; and you question "Has it a reparatory?" A. P. S. C. clinical patient recently gave an interesting account of tic-douloureux, in which two inches of the middle branch of the tri-facial nerve was removed by an operation. For a time the patient suffered no pain, but after a few days was tormented by all the agonies that he formerly had; but he noticed, between times, characteristic knitting pains that are found when fractured bones are healing. Having experienced fractures, he knew. Instances are rare, but the annals of surgery portray that nerves do repair and heal when cut.

Function has been outlined—that which comes from *inside outward*. Reverse it—what comes from *outside inward*? The senses (to be known as "C") of the alimentary tract are two: one is taste, noticeable only in the buccal chamber; second is tactile impressions. Through these the Innate brain is in contact all the time with what is taking place in any of the organs or their structures.

THROUGH THESE TWO NERVOUS SYSTEMS, INNATE AND EDUCATED, EACH OF WHICH HAS AN AFFERENT AND EFFERENT SYSTEM, ARE RECEIVED IMPRESSIONS, ETC. Thus Innate has a means of knowing just what is taking place.

Now reverse the analysis. What comes from outside inward?—all the educated mind's impressions. Take this function of tactile impression arising from the alimentary tract which may be subdivided again to include motor impression; the trophic

impression, calorific impression, secretory impressions, excretory, reparatory, circulatory and expansive; because every particular function has its equivalent afferent half of the cycle, making an afferent impression; so that when we say "tactile impression" we use it in a broad sense as a few moments ago we used the word motor.

Through what conveyors are impulses and impressions transmitted? For "B", *efferent* nerves; "C" *afferent*. Step by step analyze and see if this is correct. Prove and see if it is reasonable and conclusive. "B"—the function externally expressed—is carried through *efferent* (going *from* a center) nerves. The impressions (which become sensations) "C" are transported by *afferent* (going *to* a center) nerves. *Starting points*, in this separation, are for "B," the brain. "C" starts impressions at tissues. Where are the *ending points*? Quite the opposite. For "C" would be the brain. For "B," tissues.

So far the segregation has shown organs; structures of each; functions, senses and conveyors of both, the starting and ending points of each.

What are the mediums between? What is betwixt the origin of impulse generation and its point of expression? Function is that which the substance does, and must be performed through something. The intermediates of "B" would be any of tissues "A." For "C" would be right the reverse, the tissues being the brain substance proper.

A brief allusion to the *paths*, that are necessary, from starting to ending point, or vice versa, would be interesting. In "B"—function—its point of origination is from each characteristic brain lobe (each type having its special division) from the skull, emitting a foramen magnum, passing downward through the spinal cord, various intervertebral foramina, efferent nerves, branching at various places and degrees, according to the locality involved.

In confining investigation to the buccal orifice the extension of fibres from the spinal cord would be at S. P. on *right side*. The same is good for the œsophagus and pharynx. Upon the *left* of the same vertebra are found the stomach nerves. The division for the small intestines takes place at U. P. P.; for the larger bowel, at lower or middle P. P. The segregation for the nerves that go to the teeth takes place at fourth cervical, the glands of the throat and the throat, itself, S. P.; the liver, Li. P.; pancreas, Spl. P. on opposite side. At those points will be found fibres leaving the spinal column on their "paths" to their respective residences.

Starting at the organ, a Chiropractor must follow "C" into the brain and see clearly the exact path that impression would follow before reaching the interpretation of sensation. Its point of beginning is at tactile corpuscles in tissues of any organ, "accessory" or otherwise, through afferent nerves passing inward through various intervertebral foramina, ending at a specific brain lobe which has that Innate ability to incorporate, impress or re-

ceive it. Concentrated investigation will elucidate the "paths"; if studied, they are simple.

A few days ago, in our lessons, we touched upon the mechanical action of the alimentary canal. Not only does *The P. S. C.*, in its teachings analyze man; but also everything that he makes; and leads both back to first principle. The comparison would be as follows:

Functions	Purpose of machinery
Nerves	Pipes or wires
Brain	Dynamo or boiler
God	Man
Mechanical actions	Action of machinery
Mental impulses	Steam or electricity
Immaterial units of energy.....	Wood, coal, or water
Innate	Innate—God.

Starting from the bottom, going upward, God is to Innate what Innate is to the man. Innate is to the brain what man is to the dynamo or boiler; its builder. Brain is to the immaterial units of energy what the dynamo or boiler is to the building, its receptive station; the immaterial units of energy, after passing through the brain form mental impulses. The same is true with the wood, coal or water; it becomes and makes steam after passing through the dynamo or boiler. The mental impulses are conveyed by nerves the same as pipes convey steam or the wires the electricity; when the mental impulses have reached the tissues it makes mechanical actions. The same is true with the steam or electricity when it passes to a machine, it makes mechanical action. The mechanical actions produce functions in man and the action of machinery designates its purpose.

The last named personage has emanations—Innates—similar to the sun's rays—emanations of that solar body. These are capable of utilizing forces to make brains; the latter converts external forces to mental impulses—internal power—and are transmitted through nerves. Expression in muscles equals mechanical action; this is function; and thus we live as a complete unit, deducted, step by step, from the original starting point.

The P. S. C. explains that Innate is in *each* being, next to which is the brain; this makes the impulse, which passes through nerves and makes *mechanical* action; this movement is function. This stage is where man, with function, substance, or electricity, that is conveyed through pipes or wires, makes action of machinery; it expresses the purpose of the machine. You have reached, by fundamental, the basis of everything. From that can be elaborated all that Man's function has or may create. It is giving to man a unity that never existed before the advent of Chiropractic.

No man ever linked the two mentalities with two brains, through two intellectual nervous systems, and gave to the brain the power of transforming or converting; of giving God the oppor-

tunity to express His quantities through man in that form or manner. It is not my purpose to express any opinion as regards religion, but we must take Life step by step, and show its basis as it is. No matter what opinions each may have, it must have one basic truth. The alimentary canal *alone*, is but a set of dead organs, but when analyzed through each successive step, and given an Innate, we have the physical canal philosophically complete.

As far as the medical man, in his studies or practice, is concerned, he goes no further than the physical organs. If indigestion or any disease of the stomach appears he figures, "What material *chemical* can I give this person which will counteract that *chemical* poison which he has in excess in the stomach, the effects of which are named dyspepsia? I will try this, and if it fails, will strive with something else, and I will continue these attempts until the patient dies or leaves me disgusted." But meanwhile the patient has "chronic stomach trouble." In a disease of the liver the M. D.'s and D. O.'s first and only aim is to chemically diagnose what condition the liver is in. "If it lacks a certain chemical of this and has an excess of that, if I give so and so I can neutralize it." He tries to fathom its chemical affinity and it does not nor will not permanently give the desired result, or may merely do it for a while; or if it is going too high, he will endeavor to hold it down, but never is able to restore it to normal function. The product-chronic stomach trouble.

It does not matter what is the degree, character, percentage or combination; for instance, a case of pharyngitis is no more nor less than excessive heat in the pharynx.

We have previously taken man as an entity; taken him to pieces and built him up again.

The physician, the chemical man, gives a chemical poison to a chemical body and thinks of the pharynx as nothing but a physical organ to be dealt with by like methods. Does the Physician ever get away from that view of the subject? He is a chemical and physical fanatic; the Christian Scientist, the opposite type.

I am reminded of a negro who was so poor that he and his family were hungry all the time. He went to his pastor and told him that he was hungry and that he would like to have a chicken to eat and the minister told him to pray for it. The darky went home and did as he was told; but he had no chicken. He went back and told the minister that he was still hungry and was told that he didn't pray right. But I done prayed, "O good Lord, dis nigger is hungry, send him a chicken." Well, you go home and pray again. On the way home the darky did some thinking and when he prayed it was like this: "O, good Lord, this nigger got to have a chicken before morning; O, Good Lord, take this nigger to a chicken." He had chicken pie next day.

The solution of the problem is all in how you pray; the thing of telling you how to direct your mind does not always bring chicken, but when you see to it that your body is in a shape so

that the mind can work through it, then you will have a stomach that can digest chickens when it gets them.

I do not say these things to disparage Christian Science, or other mental sciences, but I want to see the philosophy or basis. To me, if a philosophy does not appear reasonable or consistent, I am inclined to think there is something wrong with it—it is incomplete.

For instance, throat trouble, character—pharyngitis. He is able to give the patient something which will cool the throat. If it is not acting fast enough, he will give something which stimulates its movements, but the patient has and will have chronic throat trouble. It may start as pharyngitis and finish as a catarrh of that region after his treatment; the latter being the chronic condition, the former the acute. The patient is no better than at first. He feels better at times, I admit, but what we must determine by is *permanent results*. He thinks of nothing further than the pharynx as a *physical* organ, the stomach has *physical* purposes, the liver has a chemical action, to be dealt with by like methods; *never gets any further*. He is a physical and chemical fanatic. The Christian Scientist is the opposite type. He or she maintains that "Mind is all in all; it runs the body. Mental rules all, everything must exist in this form, therefore if that (the mental) is perfect the rest must be," is the line of justifiable argument used. "When *you* have stomach trouble *you* should concentrate your mind and *you* must study to know *how* to tell *your* mind how to run the stomach. If *you* are insane, cannot think sanely; concentrate *your* (insane) mind upon *how* to think as you ought to." "The fact that *you* are insane and cannot think properly is no hindrance," for if *you* cannot think we will have friends to do it for you; and so the mental theorist pursues *his* path. *You* must think that *you* have no stomach, and it is "*the mental* that is in error, *it is* making mistakes, is insane and sinning. What *you* must do is to eradicate the mental sin by concentration, then you will eradicate *all disease*." The Drs. are sincere in their belief; the patient tries it, but the stomach and liver trouble becomes chronic just the same.

Chiropractic is the first science that harmonizes the two. We maintain just as steadily as the Christian Scientist that all is mental first, *but it must be physically interpreted*, it must show its expression *in the body*, and have a definite path and a precise something to send through that which performs mental thoughts. Chiropractors, step by step, analyze the existence from God to physical function. We are not fanatic upon the mental aspect, nor are we clinging alone to the physical, ignoring everything else. Remember that, in and all around us, all the time, is this intelligent power or force; that this is the individuality, that places power in contact with physical; and our mind, thru brain, receives and places it through a transformation—mental impulse. The latter is God personified in you and I. Mental impulse is unseen and unfelt in itself, cannot be sensed in any form, yet it is the exempli-

fication of all that is pure, holy and righteous. I mean to say that these mental impulses are so infinite in quality, quantity, character and every other attribute that is above the finite mind that the educated mind cannot see them; has not invented a microscope yet to observe them; has not invented a machine so delicate that it can perceive them by sight or feeling. It must have expression through a physical medium, which is our body. It has reached the form of impulse and while still power, internally manifested; it passes through nerves and from them causes action in muscles, which is mechanical action. This function, the outward expression, should be, if normal, a counterpart of the original principle. Man cannot assist nor give advice to Innate, therefore Christian Science is wrong; at base the M. D. is one-sided because either or both hold fast to only *one-half of the unit*. That is why Chiropractic is the only *philosophical study; it unites the two, makes of it a completeness*. I know of nothing which is so *definite in conclusions* and briefly given as the diagram upon the board.

I was amused in reading over a book the other day which went at quite length to explain that all function was innervation, and what "innervation" was he didn't state. Innervation is "nervous force," but further than that; where it was generated, came from, or what it was, were questions left unanswered. Osteopathic books are written the same way. They speak of a certain muscle being innervated by the "vagus nerve." The more I study their works the more I know that "innervation" is as "vague" to them as a "vagus" is to a Chiropractor.

They do not know any more about what innervation is, or what innervation of a muscle is, than I know what the Vagus nerve is—when I say that I do not know what the Vagus nerve is, I wish to comment upon the use of the term to express a certain quantity, which is very poorly defined—I do not wish to go on record as stating that I do not know of such a nerve.

Mechanically speaking, "the alimentary regularity of organs is the various machines which receive the rough materials and put them thru the manifold processes; thus preparing them for the finished function. It has a refuse system of solid substances. The liquid and solid sewerage orders must work hand in hand. The raw material enters at one end of this long tube, makes many successive progressive steps, each having its particular action to perform until it comes to, first, that which is utilizable as nutritive materials; and 2nd, that which is waste materials, the shavings and scraps, as it were.

Symptomatology of the Urinary System

According to Chiropractic, the Urinary System makes one step further than has been conceded. There are two kidneys, one on either side, from which runs its ureter; these join inferiorly and anteriorly at the bladder. From the latter organ is the urethra and—external world.

The kidneys are, according to medical parlance, organs that secrete urine and expel it from the body. What the urine is, where it comes from or starts, we are left to guess. A Chiropractor will maintain that the kidneys are that ending point of serous circulation which starts as water. After mixing with the saliva and other glandular juices in the intestine it makes of that, serum. The kidneys secrete urea, that which has been used as a lubricator and food throughout the body, and converts it to urine and then carries it through the ureters to the reservoir, and, when this is full, through the urethra to the external world. This is speaking of *how* it is done, minus *what* does it. To reply that action performs, leads us to "What is action, and how is it made?" That deficiency is Innate.

Let us study the various *transitions* thru which these changes occur. In subdividing the urinary system it is found composed of elementary tissues. First, the muscular; second, is serous (subdivided to connective and mucous); third, lymphatic; fourth, adipose; fifth, arteries; sixth, veins (each of the two latter having their ample anastomoses); seventh, nerves.

Consider the *functions* performed in these seven fundamental structures. First, motor—action; second, nutritive—that type of motor which is trophic in character; third, calorific—producing heat; fourth, secretory; fifth, excretory, which is, especially in the kidneys, highly developed and in point of relative values stands highest in these organs; sixth, reparatory—should there be hernia, prolapsus of the kidney, or a diseased condition—there must be reparatory impulses to repair that to normal; seventh, circulatory.

The circulations of each gland in the body varies somewhat according to its position and parts of the metabolic transformations that it has to perform. For instance, the kidneys will have four circulations: 1st, the serous—the receiving of serum and conversion of that to urea. 2nd, the ureaic circulation, that of receiving urea and converting it to urine. The by-product of the first eventually becomes a part of the second. 3rd, the arterial and venous circulation. Further comment is not necessary. 4th, the mental impulse circulation. See the cycle lecture in Vol. 5.

Each gland has its varying changes only in the second circulation. Instead of being ureaic it will be splenic juice in the spleen, bile as a waste product of the liver, the thyroidean juice as a secretion of the thyroid, etc.

We have seven basic substances and an equal number of functions performed in them. In addition to these let us meditate upon the *senses* which are necessary in completing the circuit. Do the kidneys taste, smell, hear, see or feel? They do *sense*, but by a process of Innate *Voluntary* afferent nervous system. Therefore, we shall put down one sense—tactile impressions.

We have considered tissues, functions and senses. Our next regard is for the *conveyors*; that which transmits functions and senses. To help the elucidation, I give to functions the letter "A" and to senses "B," investigating both accordingly. "A," the outward manifestation of life, passes through *efferent* nerves—out, going from the inside outward; for "B" we shall place its opposite, *afferent* nerves, that which proceeds from the external inward.

We have, so far, observed tissues, the basis of known physical life; functions; senses; then the conveyors of these. The next step will be one of *origins*. "A" is at brain, and "B," tissues. Its ending points are: "A" at tissues, and "B," brain—reversing the former. Showing that we have definite starting and ending points for each.

So far the unit is incomplete, as we have no *intermediates*—that through which these are expressed. "A" in tissues, one to seven. "B," intermediate, would be in the brain. We have summed, briefly, a definite, specific starting and ending point of the entire urinary tract.

We have so far linked the external tissues of this system with those of the brain and vice versa, giving to the urinary tract a philosophical aspect not studied nor taught by any other science. One step further—*The P. S. C.* is the only school of Chiropractic that considers each study in this light. Those who have bought other books on the subject fail to find anything to the contrary. I fail to find "Innate" (that which is *the* basic of Chiropractic) mentioned, described or elaborated upon in any other work—it is ignored.

We have tissues; functions performed in them; the senses thru which Innate is aware what functions are doing and how they are accomplishing it; the ways and means of conveyors of functions and impressions; the starting and ending points of these and their intermediates, which act as expressors of and as interpreters thereto.

The next step in this progressive analyses must be the complete *path of each*. The origin of each "A" would be from a characteristic brain lobe, thru foramin magnum, spinal cord, passing outward thru intervertebral foramina (K. P. to kidneys and P. P. for ureters, bladder and urethra) on either side, inserted into and expressed at ending plates in kidneys, ureters, bladder and urethra. And at that point they express that characteristic impulse which is given to it at brain. For "B"—tactile impressions—would start at the urethra, bladder, ureters or kidneys, proceed into and thru nerves passing inward between that movable space known as intervertebral foramina (K. P. for kidneys or P. P. for bladder or

urethra)—the impression carrying fibres passing either one above or below its motor mate,) entering and passing inward thru its spinal cord fibres, proceeding upward thru foramin magnum and ending at specific brain lobe cells.

You now have a conception of the urinary system which has never been placed before an audience. Let us consider briefly the diseases, excess or lack of normal function, of the urinary system. The function of the kidneys is to suck into them the urea from serous circulation, converting it chemically to urine. Its drops gather in the infundibuliform which, when filled, contracts, expelling the liquid contents into the ureter and then to the reservoir in the bladder. If the kidneys work in excess, the general body becomes dry, epidermis harsh, scaly eruptions of many kinds appear on the skin. If the kidneys are working below normal, we have excess of urea in the body and the result may be dropsy or seradœma. The chemical action of the kidneys is to transform urea to urine. If this be working in excess—an excess of chemical solids—too much of sugar in the urine. If there is lack of it, here or there, thruout this tract, then certain chemical properties are minus. To test out these abnormalities by any one of a dozen methods of urinalysis is but to analyze an abnormal product—treat effects—without knowing or trying to ascertain where and what the cause of such is.

If a certain kidney chemical acts in excess, it settles in the infundibuliform, and under the fusion of heat forms renal stones, which may experience considerable trouble in passing thru the ureters.

Excessive heat might (due to expansion of tissues) close the ureteral orifice—stricture—thus creating trouble with the passage of urine.

The bladder is a reservoir to hold the urine as fast as gathered. If the muscular fibres act normally, they will maintain a 100 per cent of tonicity and hold the urine until full—then it is voided. If this action be in excess, as soon as a little urine gathers it is expelled—the result—micturition. The reverse can be possible also. The bladder may retain the urine, lying in the pelvis like a small balloon, and great pain will be sensed, severe pain and other symptoms be met with.

The function of the urethra may pass thru the abnormal stages as enumerated for the ureter. There could be an excess or lack of any one of the seven in these organs. There might be too much motor; again, not enough; too much nutrition deposited at a certain point without being utilized, the result—tumor, which might be internal or outward, or in the canal. The most notable difference in the two tubes would be that in the former it passes renal stones; the latter, bladder stones.

The third function—calorific—may be in excess; too much heat, or not enough. Each function, in turn, could be followed in the same manner. This is noticeable in floating kidney, where surgery is oftentimes needlessly resorted to. Its supporting tissues

relax, dropping it into the pelvis; the physician removes a portion of this relaxed tissue, draws the remaining edges together and sews them. It is but a short time before what is left of this tissue again drops, and a second operation becomes a necessity.

This lecture has given you a more comprehensive idea of how each tissue, organ or system and its points of receiving that power which moves all its expression commonly termed function, can be enlarged upon. The study of the human body, when thus subdivided, and its superior force, Innate, studied side by side, is most interesting.

Disease?

What it is and its Cause

In this synopsis, dealt with to-night, man will be compared to a factory, and his subdivisions to those of a perfect manufacturing establishment.

A "system" in the sense as used, means not only the physical properties, but all the immaterial processes as well. Thus to speak of the urinary system, nervous system, osseous system, digestive or circulatory system, is to include all the tissues as well as currents, both in creation, transmission and expression. A "corpse" is the *remains* of a man. Dust is not a man, and when man dies he begins retrogression back to that stage.

Man is a compilation of systems. Each is the aggregation of units, and every link, but a multitude of cells. Man is the factory's superior in more than one respect; principally in that he has an intelligence which lives *within* the structure and has the knowledge of locomotion. He is (1) able to move his factory from place to place to allow adaptation to surrounding circumstances and (2) has the capacity to sustain his factory in its entirety. Hand-made objects cannot do these.

We could make comparison by saying that the product of fuel and water placed in the factory's boilers, steam power, would be wasted were it not *for man*, who, thru *further mechanical* aid, confines it to the specialized work. In the human body we put food and water and, from that moment, we (Educated Intelligence) lose all guidance over it. From the time of its entrance we are restrained as to the controlling of its transformations. Chiropractors know where it is deposited, and what and how it *mechanically* performs these; but beyond the meager point of introduction, man has nothing further to do with it. In every comparison between man and factory, you will find man ranks higher.

The organs and tissues of the human body can have a similarity to machines, and their component sections are classified, arranged and placed according to their efficiency. Is not the same systematic plan followed in any well regulated factory?

Upon entering a manufacturing establishment we are directed to witness process No. 1—the making of castings in the foundry, and from there this cast goes to the filing machine; next to be bored; then shaped, drilled and planed in the rough. It still needs further polishing and proceeds thru three stages of finishings as regards the surface. Next it is transported to the turning lathe, where the bearings are accurately turned; to the nickel-plating and burnishing machines. From that time it is wrapped in tissue paper, boxed and ready for shipment or local sale. Step by step we have observed the entrance of smelted ore to a commodity ready for use.

Each machine is so located that its finished article is passed to the next, which is placed nearest it. Each consecutive machine is so placed that it is where it is needed next. The filing and nickel-plating machines would not be found together. The products pass from one machine to another, so that each article, as it progresses from the rough to the finished, goes grade by grade.

The piecework, *mechanical* process, is highly developed in the Rock Island Arsenal small arms factory. At one end of a room enters the rough, casted barrel, which leaves at the other end, finished. The rough timber is admitted at another gallery and leaves as finished stocks for the polished rifle barrels. In the third locality all parts are assembled. One man affixes the rifle sight; carries it to the next; he does his little movement; thus the substances are passed. It is a pleasure indeed to make a tour of this immense building. On one floor we see the rough materials introduced and, by walking from one end to the other, thru three floors, see it leave, at last, boxed, ready for shipment to wherever there are any of Uncle Sam's warriors.

Thruout this process of *unreflective mechanical* piecework, *where one action has no reflection* ("reflex action") upon the preceding or the one to follow, you have the idea firmly impressed that *each man and his process is a unit unto itself*; what he does is done, and once accomplished is not subject to change by the next man, for each is a specialist in the exemplification in that performance. Should the first man spoil a piece of timber it is *thrown out or passed on* to be utilized *as best it can* by the next process. It cannot be, subsequently, made perfect because some one blundered over it when passing it thru his instruments. Each process is complete, so far as it goes; the sum total being equivalent to the completed object. Factory work is unital piecework; in the human factory "sympathetic"—"by means unknown"—is the explanation offered. He does not call nor ask for "sympathetic" assistance. This is but one inconsistency of the human intellect in trying to decipher the actions of Innate—*looking at them thru chemical glasses instead of assisting them thru mechanical movements*.

The human body is based upon both of these principles. *The chemical is the product of the mechanical*. Every movement, no matter where placed, is the performance of some *mechanical* action; therefore everything that is accomplished with material substances *must be based, primarily, upon the latter; the former being the product* in preference to the producer. How much greater and more valuable must be the study of *mechanical*, in its order, in preference to *chemical*? *The earlier and present day M. D. and D. O. study of the human system ought to be reversed*.

The mechanical and its study, human or otherwise, is complete because it takes mechanical principles exemplified to make its product—chemical. In consideration of the chemical we must *revert to the mechanical which made that combination*. *Mechanical can be studied alone* without the knowledge of what it may

make. Chemical is the product of movements. All "movements" *are mechanical*. The chemical must be investigated, *in connection with mechanical*, to know what and how it was created.

It is a necessity to properly place and locate each organ, tissue and cell, according to its work; to best save time and material. If students would investigate *in a mechanical manner*, and lay bare the what, where, how and why of Innate in running this *model factory*, he could and would learn valuable pointers for his business, *regardless of what it is*. It would cause him to think and in a great measure remodel his ideas now in use. Let us briefly review physical symptoms and see how befittingly they will compare with that of the factory.

1. The Osteological plan is the framework; the legs, supports; feet, the foundation, the thoracic walls are lateral restrictors to the future unity.

2. The Articulating classification is, as it were, the glue or nails which fasten the joints of No. 1, only in the human factory such allow movability of all parts, whereas in the factory built by men it is and must be stationary.

3. The respiratory method is the intake, which prepares, sifts, filters and heats the air. In this stage it passes to the pulmonary circulation, from whence the oxygen is transmitted to all tissues to assist in combustion—heat.

4. The arterial and venous circulatory scheme. The former is the conveyor of oxygen to and the latter of carbon dioxide from all tissues. They carry the combustible materials to and from the blasting machines (cells) of the heating system which keep the factory warm. This system conveys oxygen from lungs to each individual cell. The calorific mental impulse (spark) then sets the deposited gas (8-9ths of which is liquid) into action—the combustion is heat. After the explosion the gases are resorbed by the venous system, transported to lungs and expelled.

5. The Serous Circulatory order, including *all* glands in the body, is the circulating serous system, which subjugates friction, maintains liquid and conveys nutrition to all parts. It is the lubricator of the system, and from being a liquid, keeps together, in a solid mass, all that which would be as so much dust.

6. The Urinary arrangement is the drainage to all that which is liquid.

7. The alimentary regularity of organs is the various machines which receive the rough materials and put them thru the manifold processes, thus preparing them for the finished function. It has a refuse system of solid substances. The liquid and solid sewage orders must work hand in hand. The raw material enters at one end of this long tube, makes many successive progressive steps, each having its particular action to perform until it sums to, 1st, that which is utilizable as nutritive materials, and 2nd, that which is waste material, the shavings and scraps, as it were.

8. The muscular system is that series of belts, cogs, etc., which convey *mechanical* motions to the various organs; bodily machines and skeleton, allowing an external framework locomotion which factory-made objects, like automatons, sometimes have, *but minus intelligence*. Muscular movements allow this organic factory to be transferred from place to place, expressing and allowing vent to the intelligence which lies behind.

9. A generative classification. This is composed of those machines which, while they are an integral part of the factory, are not directly connected with its maintenance. It duplicates those parts of like machines that make up other factories; it is a process of where factory (intelligence to deliverance, within itself) makes factory. This process might be elaborated to where every machine molds a certain kind of piecework. Each organized machine has one initial, *mechanical* function to perform. When a certain standard of quality has been reached and finished, it is *inwardly* transported to the next machine. The two halves of this future machine, spermatozoon of the male and ovum of the female, of the two sexes makes *our* future individual factory.

10. The sense system is that telephonic communication between every machine and its unit cells, in the factory, which connects it with each regional manager in the office. Every controller of that output, at his desk (brain lobe) in the general office (brain) is in contact with all kinds of work (function) in the factory (body) over which he has command, and by millions of wires (nerves *coming to* (centering at) his desk he can at all times (night and day, from birth to death) know just what kind of work, as to quantity, speed and quality, it is turning out. Each sense nerve fibrella is as an eye that sees only the action of that cell and immediately informs the Innate all about it. Senses are those interpretations at the mind which convey knowledge from the machine to headquarters; keeping the intelligence in constant contact.

11. Brain lobes are those sections through which Innate sends forth force; which gives to each nerve fibre its mental impulse. The brain receives force from Innate and doles out the necessities to nerves.

12. The brain is the general manager, so to speak, above all organs, superior to each machine, and exceeding all; the creator of the offices and the supplier of *mechanically* trained officers to fill them (no political games or grafting are indulged in here) or, properly speaking, he is the director of the establishment. Behind him is the proprietor—Innate—who owns every stick in its makeup and the earth upon which it was grown and stands.

The human body is divisible into viscera, the latter segregated to its structural tissues. Every machine of a factory is composed of dozens or hundreds of atoms. For example, take a Miehle press or Linotype. Each part is slightly different, or has a great deal of resemblance, but every one has its niche where it must fit.

It acts as one cog and must be in the best possible condition to deliver *perfect work*.

Each organ in the body is composed of various cells. Each tissue has individual characteristics, a special type of work to perform; and every cell must be in proper place and capable of putting into execution its model of action to have complete harmony thruout every detail. This chain can be reversed from cell to tissue, tissue to organ, organ to system of Viscera, and the complete systems of the latter to make one body. This body, the complete unit, has the ability to start materials, in the rough, execute them step by step, and produce the finished product, the highest type of personification.

Suppose the finishing machines were "operated upon"—removed. The expert foreman would not take the rough product from the saw to the varnishing room to be turned out as finished, as in the past, when each machine was present. Neither must the physician or Osteopath try and *compel* the human factory to run in perfect, if not better harmony, with 1, 2, 3 or 4 organs minus; and if inharmony *still* exists, *rip out some more*. What folly when applied to the factory. Are not its *mechanical* principles as applicable to the human body? Is not such madness of every day occurrence with men ignorant of the first *mechanical* physical truth? The foreman would not dare to foist such nonsense, absurdities, or imbecility upon the proprietor of the factory. Why compel, by Medical or Osteopathic Practice Acts, people to put up with such in their homes; with the beloved wife, daughter or son? Would it not be sense, wisdom, sanity and good judgment to *apply the same mechanical principles to one machine as are applicable to another*? Is it necessary to compel people to reason with good sense? No. *It is only the inconsistencies that must be foisted and heaped upon the unwary by compulsory means*. Demonstrate that which is practical and health *laws* (there are none yet) external to the human body will be unknown.

Take, for example, a sliding contact with oiled surfaces which are binding each other so closely that it is impossible to place oil between them. Thru some accident the superior surface has become slightly displaced and thus approximates upon each other so close that there is friction where formerly was freedom. Attrition produces too much heat. In short, the machine will wobble from inability to run smoothly; sooner or later this excessive heat will "cut the metal," that is, wear it off in grooves or edges. Let us philosophize, M. D. fashion. "Continue to try and hypodermically and forcibly inject various oils, lubricants, etc., etc. For the excessive heat we will apply something which will draw from it the surplus heat, pour on cold water, *aim to reduce the heat that exists*." After an extended period of experienced guessing "as a last resort" they will, after an extended consultation, offer to and do (once, twice or thrice, or as long as the affection still exists) remove portions of the superficial runners, or remove *all* of those parts that rub; then they *cannot* rub. The practical mechanic

would have done away with these imprudences and have *adjusted* that superior or inferior portion, according to which was subluxated, to its right position. The report, from the machine to Innate, would *then be*, "Tell the engineer to go ahead; put on steam; all is O. K." *Which is practical? Which determines results before the details of the abnormalities are known?*

Man is a machine builded around such principles. Why not reason with him as intelligently as with any other piece of ingenuity?

Suppose we have ten machines and one, by an operation, was removed. It was a necessity when everything was all right, but thru some accident that machine's function was made idle. The howl is over the damaged machine. Man would use good judgment and adjust that which made it idle, altho it may be in the center shaft, ten feet away, as soon as this was done, harmony would again prevail.

In the human body we must expect as much or more, for each has its machines *which no factory can reproduce*. Reason that if an external injury so smashes an organ, limb, etc., etc., that it cannot be replaced or expected to heal (which *occasionally* occurs), then it must be removed by surgery; but the majority of operations today are those where derangements are caused by some slight *internal mechanical* disability. Its location and what it is; its correction and how, is unknown to "regular" practitioners; therefore, *for the want of better knowledge*, it is removed; an irreparable damage. That machine, of specific character, cannot be replaced. Life is taken that cannot be duplicated. Remove the indicted whether he was guilty or no. Kill the innocent for fear that they *might* commit murder. Remove the appendix, ovaries and womb for fear they *may* have future *use* and trouble the individual.

Do not take life that cannot be replaced, unless the circumstances compel it. Ninety-nine per cent of deaths, by operations, today, are human butchery. The person who performs these acts is more guilty of murder than he who commits a deed for justifiable cause.

But, if thru some accident, *man* falls, produces subluxation, followed by pressures upon nerves at intervertebral foramina, shutting off the transmission of mental power, which has its train of symptoms that varies in each case, the disease thus represents the degree and kind of *mechanical* functions that are idle.

Why not use as good sense here as in the factory? *They*, on the reverse, *take it out*, and leave the body minus. You cannot do this in a factory; why attempt it in man? Suppose a pulley becomes bent; the line shaft, twisted; one or more of its boxings are slightly awry and produce friction; power is slackened and you have a hot-box. What is to be done? A *mechanic* (and by this I mean *physicians are not*) *would adjust what was wrong*. The physician *treats the diseased chemical product with chemical compounds and applications* of endless quantities and various qualities; *the surgeon removes the chemically affected area*, expecting

better harmony to exist. Such folly is incomprehensible to a factory proprietor. Is not the body the best machine yet invented, conceived or patented?

It is founded upon *all* the mechanical principles that *are* known and many that *are unknown*. Many mechanical movements, executed in the human body if man could but decipher and use them, would make him many times the world's wisest sage.

Must it not be accepted as reasonable, if an arm is broken, that Innate, having unbroken connection between source of power and internal physical divisions, will run the machine properly? Is it unreasonable to propose the *mechanical* proposition that a broken energy connection would but express itself in the *mechanical* idleness of an organ? Should we not speak to a machine in *mechanical* quantitative terms to convey such ideas? Is it insane or unintelligent to believe that a machine ought to be put to rights in preference to giving to that divisional atom-organ in the human or factory a dose or treatment to the effects, and if good results are not manifest *cut it out*?

Suppose every machine has its *mechanical* function and every part of it is in exactly its normal place and its connection with Innate is perfect; consequently the transmission of Innate mental power is unceasing. We must conclude that positive action *must* follow plus normal quantity of power. It has direct connection with every head office. Every machine now is perfect; there can be nothing wrong, for each works as it ought to, in accordance with the lines, as it was built to do. A healthy factory is the result.

In the human body, with the Intelligence-Innate as general manager, his brain system of nerves, the viscera as the machines and skeletons as the framework, sense system for intercommunication; must we not deduct that if every structural bone is in its proper place, all power unrestricted, that machine cannot be otherwise than exactly normal?

Vertebral subluxations are common occurrences, hindering the quantity and quality of mental power. The muscles become inactive; they cease to act; the stomach is unable to digest food; there is partial or entire lack of motion at a specific locality. If that be the case, what is the result—incoördination; inharmony between mental and physical. If the functional machine cannot work, the *Chiropractor's mechanically trained mind* should observe and *palpate for abnormal mechanical principles; find the mechanical reason—why*.

The concentration should be on *mechanical cause, not chemical effects*. It ran all right yestreday, *why* not now? If your present knowledge be so meager as to not fit the case; your every hour and day to study should be conducted along and *in accordance with the mechanical principles incorporated in this enterprise*; if none of the known ones fit, *study Innate and how she performs the creation*, so that you can work in and with her conceptions of her handiwork.

Instead of looking *within the machine for its troubles*, the M. D. and, I am sorry to say, the D. O.'s, are retrograding, to look *outside, to see how much, what kind, how does it look under the microscope, what are its chemical properties and affinities, and to what family or specie does the microbe belong,*" he can lay to external circumstances. *The Chiropractor finds the cause of every disease to be one or more mechanical principles that are obviously wrong*, therefore he investigates the machine itself, studies its every possible place where there is a possibility of interference, where a hard substance is interposing with the soft, finding *what is wrong with the mechanical that is interfering with the chemical*. Anything external to that is but the effect acting upon what was previously wrong.

That is why a person trained and drilled to believe that excesses or lack of certain chemicals are the *cause* of disease is a harder and, as a rule, slower student to grasp Chiropractic. He reiterates past teachings. The mechanic, on the reverse, progresses fast because Chiropractic is in accordance with his *practical, result giving* experiences. He was compelled to adjust causes, for if he *could not* somebody else would. To study Chiropractic means to lay aside past conceptions. They are wrongly placed and cannot work hand in hand, to one who *thoroly* conceives this scientific study.

Each body is a movable factory unto itself. If you give what is needed, fuel and water, the superior powers that are and always have been, will keep it to the highest pinnacle; it then can make its existence a reality.

The human mechanism must be kept adjusted. To keep perfect time the watch must be exquisitely adjusted. Every wheel, cog, bearing and jewel must be *mechanically* perfect, for any defect, trouble or friction anywhere will make absolutely correct time impossible. The human machinery is infinitely more delicate than the mechanism of the finest chronometer and it needs regulating, needs to be put in perfect tune, adjusted to a nicety every morning before it starts on the day's run, just as a violin must be adjusted for playing a tune.

It is strange that men, who are very shrewd in other matters, should be so shortsighted, so ignorant, so utterly foolish in regard to the importance of keeping their marvelous, intricate and delicate physical machinery every day in perfect adjustment; for inharmony means inefficiency, lack of power. Many a business man drags himself wearily through a discordant day and find himself completely exhausted at night, who would have accomplished a great deal more, with infinitely less effort, and have gone home in a much fresher condition if he had taken time to have his vertebræ tuned before going to his office.

The man who goes to his work in the morning feeling out of sorts with everybody is in an antagonistic attitude of mind toward life, especially toward those with whom he has to deal, is in no

condition to bring the maximum of his power to his task. A large percentage of his mental forces will not be available.

When will he learn that it is not the number of hours we work, but the efficiency or spirit that is utilized that counts? Many of us would accomplish much more in two or three hours of vigorous, effective work, when the mind is fresh and resourceful, then we could accomplish in an entire day with the system run down. It is the worst possible kind of economy to try and force good work out of a discordant instrument—machine out of order.

Forcing the physical to work when it is out of plumb is a very shortsighted policy. It takes too much out of the human instrument. Multitudes commit suicide on many years of their lives by not keeping themselves properly adjusted.

The origin of the word *disease* was *not—ease*; lack of being comfortable, uneasy, restless, that condition of being physically not sane. This in a factory may be one of a thousand characters. Perhaps there are uneasy mental faculties or uncomfortableness in the stomach, spleen, bladder, lungs, or bowels, etc. The uneasiness might be in the foot or hands. *The combination of the where, what and how of disease* and its symptoms is *always* indefinite. This is readily observed by the variance of opinions of many reputable physicians in disagreeing as to *what* to name them. If they debate in *diagnosing the chemical disease*, which is the outward condition; the symptoms, effects, that which the patient feels or sees; what must be their position as regards to its *internal cause*?

Quite frequently M. D.'s or D. O.'s are very uncertain as to whether it is this or that; cannot definitely locate it; they are at sea until *the chemical* constituents of the *disease* have developed more prominently; he must know what *that* is before he can begin treatment. The Chiropractor has the superior ability of *exactly* locating *the cause, regardless of the combinations of symptoms that may be close or spread*; in the acute or chronic stages. The endless combinations of chemicals can be twisted, hatched and developed between the nine or more primary functions without end and can, on the whole, be interpreted according to the whims and fancies of the person studying them. It is a problem that thousands of lives have been lost for, "*What was the disease?*" and yet they are no wiser as to *cause*, today than then.

They know, as experts, what *chemical disease* is and how to *chemically* name and *treat* it, but their ability in trying to supply *from the outside to the inside*, that which cannot be manufactured by *chemical* means, proves that they have not reached rock bottom—the *mechanical cause*. Does their scientific *chemical* ability to guess at proportions—lacking and needed—the endless quantity upon their craniums, prove that this knowledge has reached deductive facts sufficient to remain stable? Is *so, where is it?* Observe the past 300 years.

Chiropractors are not educated to study *disease*, its symptoms, and then name them. If their education has been chemically based on their precedents, there is slight question but that they would

have followed the same ruts. Its earliest teacher, twelve years ago, knew but little of what disease was. His study was devoted to propagate *mechanical causes* of this and the other combinations of abnormal *mechanical proportions* which the M. D.'s and D. O.'s had, *chemically*, down pat. Instead of progressing *into the fundamental* of this universe—*mechanics*—they have been working *upon the products*—*chemicals*—the knowledge of disease and its *chemical proportions*. Chiropractors are leaving behind them all chemical studies, all that pertains to working with effects; but they are progressing upon the philosophical study of the human body as a mechanical and electrical machine, in connection with his Innate. He is simplifying those conditions under direct heads and locating, specifically and mechanically, the cause of each.

When your teachers found a certain amalgamation of symptoms existing they didn't call or name them. *Their* idea was "what is wrong *mechanically*?" By keeping that and Innate before them *they solved the problem of the most complex machine*. Chiropractic, *mechanically speaking*, is, therefore, "*the science of (mechanical) cause of disease and art of adjusting (mechanically), by hand, all subluxations of the three hundred articulations of the human skeletal frame, more especially the fifty-two (mechanical) articulations of the spinal column, for the purpose of freeing impinged nerves as they emanate thru the intervertebral foramina, restoring normal currents, hence correcting abnormal (mechanical principles)—named functions, in excess or not enough—disease. (Science of Chiropractic, Vol. 1.)*" Chiropractic is not a knowledge of *what disease is, but what causes it*. This leads us back to this lecture's text—"Disease, What it is and its Cause," which is answered, "What disease is we care little, *what its cause is and the art of correcting that, is our lifework study.*"

The M. D.'s have sacrificed endless quantities of money, millions of lives and brains for the study of *chemical disease*. The Chiropractor has yet to lose one patient in his study of *mechanical cause* as a result of his mistakes and spend one dollar other than to educate the public out of *treating, chemical superstition into mechanical; adjusting intelligence.*

Urine can be analyzed, its quantities and qualities of each that are running from the machine can be deciphered. How does that *chemical* knowledge, which required *months* to learn, *adjust* the wrongly acting *mechanical* principle? Again, "biliousness" might be considered; it may also be given a *chemical* scrutiny, but when finished *what have we?* Nothing that is essential or of value to *what caused or can adjust that condition.*

In the study of causes then, it is necessary to reach cement foundation of this medicine. In factory, as well as body, we must study the methods of transporting power from the place made to where expressed. Expressed power must be considered. We need to investigate (*every step upon a mechanical basis*) *the mechanical* product of that machine, its normal *mechanical* action. *When this we have*, abnormal becomes readily apparent, *just how or in what*

proportion the effects are, becomes an item of side issue. As to just how far, we as Chiropractors, wish to *labor* upon what kind of a *chemical* diseased condition is in the machine depends upon how much time we desire to waste or toady to the present day, superstitious, sympathetic, reflex action, that has been forced into our brains, whether we will or no. To cater to the present day whims is but to deceive yourself and patient as to that which is the truth. The Chiropractor, caught doing such practices, is as guilty as he who does believe it. It is easier to reiterate than to teach *new* thots.

A Chiropractor, who has a knowledge of Innate; the power that she makes; thru what and how such is carried; the kinds of machinery that expresses it; what kind of cells are necessary to make a certain pattern of action; *how* that machine carries on its work and what its products are and the *mechanical* principles involved from conception to action and birth to death, is intelligent. It is a *study that appeals* to every person *who wishes facts that are incontestable*. The instability of medcial *chemical* principles are daily shown in every patient they have. They get better, worse, live or die, but *never* get *well*. How *can* they with a *mechanical* cause still existing; its entity being unknown to the attending *chemical* doctors; therefore the machine, slightly better or worse, continues to exist unadjusted.

Briefly, disease is the *partial* interruption of *mechanical* power from Innate to organs. Death is the *complete* dissolution or idleness between the source of power and its expression. Health is the normal *mechanical* expression, thruout all machines of the human system, of impressions and their equal interpetation, the mechanical conception and expression, coördination between Innate (the mechanical power maker) and Physical (the mechanical expressor).

A handwritten signature in cursive script, reading "J. H. Roberts". The signature is written in dark ink and is positioned at the bottom of the page, below the main text.

Biology

This reconsideration will not dwell upon any one subject, but regard life in a general sense, showing where advancement has been made in the last year. I like to feel, when every day's work is done, that we have made progress. If no point has been carried, in advance of yesterday's, the day is lost. We need all of *Chiropractic* that can be deciphered. Every time a lame person is helped over the stile the world has been given what it is clamoring for. In Chiropractic you and I have the only knowledge that gives to humanity a specific science of cause of disease in an exact manner and delivers results. I do not mean that we have it all, nor can any one science in 15 years know so much. The past year our work has been unhindered, and in retrospection I realize, with you, that the last 12 months *P. S. C.* work has brought out more *Chiropractic* than any other four or five years preceding.

In our lecture on the embryo we conceded to the spermatozoon and ovum a future unit. That gave to this conception that took place at the union of these elements a new light, placing it in the aspect of the future child, a phase that no other school has given to it.

We have also brought out the idea that fusion of the two elements, male and female, when expanded, was the future adult. Taking it upon the same basis, this concentrated form is the unit. It is just as much the person now, when it lies in the uterus; is equal to the son or daughter; as it would be thirty years after birth.

The expansion is only its maturity of form, which is its shape, quality and quantity. This extensive process is the shaping, and as soon as the embryo has received all that is possible internally, it is expelled from the mother body, and begins the process of maturity to size on the outside.

We next looked into the brain system. If there is any one point that Chiropractic is extremely radical upon, it is this question. We have *one* brain system. This alone cannot be considered, but must be divided, to make the study complete, into an educated and innate mental *nervous* brain system; although each is finished in detail. Educated is that which moves at command of the will, moves limbs when walking and uses hands in doing Chiropractic work.

On the opposite I have an innate nervous system, that two-thirds of the entire system over which I have no control. It is the impulse conveyed by this system which is performing work on my dinner, acts upon the fecal matter in getting it ready for expulsion, and causes the secretions to be made in all parts of my body. It is that force which is causing nutrition to be carried to all parts. I *cannot command these* powers to act here nor there as I might will. If normal functions, with all channels free and open, can-

not be controlled by Educated man, is it not the height of folly for the same fellow to try and dictate to Innate how to correct *abnormal* functions, when foramina are occluded, nerves impinged? The division exists into that which can be commanded by the will and that which cannot.

We transferred the name of this system. When a *portion* of it is a *nervous* system, to my comprehension the term does not convey its entirety. I wish to give one universal name, to show its generalities. Consideration must be given to the place from which these nerves come—brain. To convey my idea, or give it a term that explains all, I shall use *Brain System* in preference. The common term but represents the outgrowth or expansion of the former. Immediately we get the conception of brain system we have the added interest of the brain, its functions and ramifications; spinal cord and all its segregations.

The P. S. C. had added *another* new study to its curriculum. The brain takes precedence over nerves in point of superiority as the force or power generator; the thinker and impulse starter; as a forerunner because it preceded them. It is the seat of all intelligence. Previous to this direct *body to brain* connection by means of nerves, it has been "sympathetic," "reflex action," which are but indications of retracing steps; dancing back track; to do over again; to harp on the same string; by one who cuts one's coat according to one's cloth.

Does any school consider the *brain system* and its nerves in connection? No. Although a few in the field have attempted monographic imitations about Chiropractic, *this* foundation upon which Chiropractic rests is ignored. I have yet to find any publications, journals or books, that technically or scientifically have *advanced*, by discoveries, its study, outside *The P. S. C.* Several journals have reiterated what they have copied from the literature and ideas as advanced by *The P. S. C.*, but the above remark is above question. It is an original physiological discovery, and although it has always existed, give the *proper man* the credit for finding it out. The author has given certain highly developed innate faculties and years of practical experience; with the use of the largest osteological collection in the world; which is a necessity to give substantiation to the original thinker; and these, connected with superior intelligence, have and will continue to make him capable of deducting facts that no one else has or can see. *It is that peculiar individuality that makes The P. S. C. a pace setter and its students win the race at every turn.*

With this brain system we are placing behind the nerves something which controls their output. Previous to this the M. D. has looked upon brain as *brain matter*, composed of so many convolutions, fissures and lobes. He can tell you *what kind of tissue* it is, that there is a spinal cord and nerves. He does not say, though that one is a counterpart of the other nor maintain that one could not exist without the other.

Conan Doyle says, "*Observe things.*" You strangers have passed those steps for the first time. What proportion of you can tell how many there are? None. I question whether half could tell whether they are pine, oak, walnut or birch. *Train your senses to observe.* A man walking in front of me, today, stepped over a pocket-book. I *observed* the lady who dropped it and he didn't. Why? *His observation was limited.* Many people go through the world *seeing things*, sometimes seeing snakes (laughter), but never *observing them*. Many men make fine personal appearances to show external beauty, but the *observing* man, penetratingly, sees only shallowness. The keen observer is the man who perceives when you think he is in the abstract. He itemizes all ideas, salts them away, places them in respective pigeonholes, and some day it is he who gathers the innumerable observations of a specific character together and springs upon the world a Brain system or a Serous Circulation because, *he has observed while you were looking.* Your *seeing* abilities will poo-hoo his observations because your penetration is not as sharp as his.

The next immediate step in connection with the brain system is to consider the senses and those organs which have the ability of interpreting the incoming impressions or observations. Man, outwardly, is known to have at least five, but the little pig is just hog enough to express one more. Place him at two or three weeks old in a bag and drive ten or twenty miles away, and, when let alone, he runs home. A *sense* of direction.

Some women have this perception highly developed. Twist them as much as you will and ask them to locate certain spots in a foreign city and they will do it. Man has more outward senses than he is given credit for. We observe five of the educated mind, but how many more of the Innate that are unsensed is a question that yet needs determining and future Chiropractic investigation.

Senses are for Innate Intelligence to determine two things: (1) What is going on externally to her castle to protect the inner man, and (2) to know exactly at all times, day and night, what the inner man is doing. Quicker than you and I realize it, after a violent jar, the muscles are suddenly contracted. Your educated did not do. The muscles were drawn taut before you or I knew it. This is but one illustration of how innate, through impressions going inward, preserves the body from force or contusion.

Suppose we should get poisoned; medicine is taken in the form or morphine or laudanum with the intention of committing suicide or thinking it will cure some disease. Innate would immediately adapt her forces by sending impulses which will contract the oesophagus and stomach, purging its contents. *You* cannot contract your stomach to heave its contents.

A sense is that interpretation that Innate places upon impressions when received at the brain from the external. For instance, I put my finger into hot water. How do I know it is the opposite of cold? The finger alone has no intellectual pursuits. Cer-

tain impressions are received at that moment at tactile corpuscles and, interpreted by the brain, which "senses" them.

For instance, I maintain this pointer is square. With my eyes closed I cannot see it. It cannot be smelled or tasted. Then *how* do I know? By turning it around between the finger certain impressions follow to the brain. Sense, again, is but that interpretation of external things that the Innate places upon impressions. Pain is the interpretation of abnormal external conditions.

Let us dare to *observe* another link in this chain; an idea that no one else has *seen*: *that directness of the path that carries impressions*. Where do these nerves go? Considering the foregoing illustration—through the arm; spinal cord to the brain. *There are no switch stations*. The impressions proceed in a direct manner; then if that substance is found to be *hot* it would be dropped. Why? Because your mind interprets it and *knows* it is damaging to tissue. The muscles contract and draw from it.

If any other school has ever questioned whether there was or was not a sympathetic nervous system I have not seen it. Schools, medical and osteopathic, have always taken this system as a matter of fact, as being the order of the day, a custom we have long fallen used to. They followed the fashion as a matter of course, and coupled it with the lack of knowledge of a brain, *with its mind or mental intelligence*. For this mental intelligence they had little less than contempt; turning a cold shoulder upon it; trying to take the starch out of it, to tread or trample it under foot; not caring a continental; considering it all poppycock. It was "small potatoes" and few in a hill; an empty noodle. All this, which has been shown, has made a wall so high and thick that the layman with superstition over his eyes could see so little that attempts to scale this wall were futile. It required a type of man whose observation was deep, concentrated and penetrating to go through and reach the top of this with a *home-hewn ladder*, this hocus-pocus make-believe, hanging out false colors; throwing tubs to whales propositions. The Chiropractor *has* scaled this wall, stone by stone, until *he stands on top* and is capable of *observing* how small the man below is. The above pulling of wool over one's eyes has been handed down as an heirloom and *The P. S. C.*, with its present faculty, are the first who ever dared to question it. There are indisputable facts that it is not true. This school, for the first time this winter, has opened the breach and stormed its impregnable (?) walls, and if you ask the reason for it, I would say: Briefly—"Sympathy," according to *Dunglison, Gould's Dictionary*, the encyclopedic medical dictionary, is some transformation which takes place *in nerves*, "*by means unknown*." This change is supposed to take place in this something kind of a system "*by means unknown*." You, with a prophetic vision, a flight of fancy, a stretch of imagination, castle building peculiar to yourself; figuring with fanciful numerals, giving rein to your chin music, trying to crack, or cudgel your brain; you are supposed to visit the land of dreams (Health) and

deduct the possible factors of ignorance; you, not knowing a hawk from a handsaw, having films over your eyes, and being unable to see or having anything with which to make something. You are supposed to gild the pill with make-believes and gouge it down with a feint and then set the question at rest by being in a perpetual stew. When we have dared to go behind the superstitious fellow who has always shared these mysteries, it clears everything which has been *before*. Instead of the Chiropractor saying "*by means unknown*," he definitely states *what power* it is that expresses these actions and he has proof of what channels this force goes thru. Specific, pure and unadulterated, philosophical Chiropractic has a direct path, from brain to tissue or vice versa, for every nerve ending in tissue, and beginning at the brain. No matter where the fibre is, *it must have* a starting point at some brain cell. If you can conceive of the grandness or unlimited facilities of that thought, you will see that we have something different from a "sympathetic nervous system." Man is too grand an object to run without a mind that personifies thots or interprets impressions. Therefore, I must discountenance a sympathetic nervous system and drop reflex action because the latter is that change which is *supposed* to take place in the former. If we disprove one, the other cannot be.

If *you* comprehend the obstinacy of "reflex action," how it sticks to nothing, is wedded to an opinion, you can then bring into resurrection that which thousands for thousands of years have been trying to clean out of their heads; which, gathering from the value that has been and is being delivered to humanity, is still consigned to the tomb of the Sapulets. You will have a knowledge as basis, equivalent to that oscillation, to and fro; up and down; backwards and forwards; wobble-wobble movement that they have in vain tried to subdue but cannot.

For instance, here is a disease and there is a spinal segment. This disease has two nerves. A stimulus takes place at the peripheral of that fibre; goes to spinal cord and somehow (as we are informed) these fibres intercross. They *reflect* to some fibre somewhere; may go to the spleen; but is just as apt to go to the stomach or heart as the point from which it started. If it "reflects," kisses the rod, licks the dust; humbles itself; is willing to play any one of a thousand fiddle strings (nerve fibres), all is well, but, according to superstition, it must grab, jabber, cackle, rattle, gibble-gabble on the return what it has received. If it wakes a wrong passenger external man howls louder; if luck should allow him to get a few impulses, then he pats himself on the back. It is rebounding *disease upon disease, which but makes the disease worse and that is* the principle of medicine and osteopathy in accounting for your disease.

When a man starts to reach a certain point he is not ashamed to say so and tell the path thru which he came. When he attends a medical college it is to study *medicine*. He does not go to study causes, but what little he has is based upon bacteriology—the present fashion. If he is puzzled as to what to name symptoms, when

in practice, what must be his position as regards cause, of which he is not posted? *The P. S. C.* has, during the last year, dared to question the sympathetic nervous system and is brave enough in the backbone to place in preference that *which you can place your finger upon and say, there is the cause of this disease.* Only one, who has discovered and developed the fundamental ideas surrounding these branches, has sufficient grit to maintain their present state of efficiency and continue to unsolve them for future perfection.

Many of the so-called sympathetic diseases are direct responsive actions, what Chiropractors term "adapted conditions." It is not a disease and represents no subluxation, but an accommodating change to maintain the first law of Nature—preservation. Your hand was placed against something which burned the flesh and a blister was formed. A blister is not a disease. It can be in some cases of general excessive heat, but not in this instance. Did you ever reason that behind this was an *intelligence* that thinks? "If I allow that hand to remain it would be burned"? The first layer of the epidermis is raised and a sack of urea is formed. It was created to protect or act as a non-conductor to the excessive heat outside. How often have you noticed when a person was scalded by heat that there *were* blisters? My advice is "leave the blisters alone. Do not prick them." When Innate put them there she had a specific purpose and knew what she was doing. Her superior knowledge is more capable of regulating them. "What God has joined, let no man break asunder," is the Bible's commandment. Don't argue with superiors. When this sac has served its purpose Innate will dispose of it.

We have taken up briefly the analysis of the urinary and alimentary tracts. Chiropractic, differing as it does upon fundamental basis, its superstructure must correspond. It is our aim to have essential principles there and all other studies correspond. I do not mean by that that we claim to be cranks or supremely radical, but, looking as we do upon past educations as wrongly based, we must originate new ideas to replace those which are dismissed. When I say an M. D. or D. O. *diagnoses* diseases I mean just that. Let us analyze the thought "diagnosing diseases." The D. O. or M. D. enters a sick room or has a patient at his office. His questions are confined to "What is your disease? Pain so and so, fever, don't urinate, bowels do not move, gas upon the stomach, head dizzy at times." He gathers symptoms—juggles them around, meanwhile churning them thru his mental superstitions, seasons with a pinch of a thrice-told tale, doles out a little of a long yarn of hypothetical terms, considering the title with the bullion possessed by the sufferer, and finally delivers the bolus entitled "Misnomer"; adds, subtracts, divides and then multiplies; sums up and down "by means unknown" with symbols of dead languages until he decides that certain sympathetical medicines are worth trying to reflect the disease anywhere else but where it now is. He has "diagnosed" the disease, jumbled the symptoms into one name. When asked "What

is the cause"? *Causa ealet, vis est notissima.* "The cause is hidden; the effects are notorious."

What does the Chiropractor do? "What are your symptoms?" Sixteen, perhaps, are named. All of those have *one* or more subluxations. He knows, just the moment that person says excessive heat of the stomach, that there is (and where it is) a pressure upon a calorific nerve. *He has analyzed that symptom back to cause.* The patient will tell, "I have a great deal of gas from my stomach." The Chiropractor will say, "That is the result of excessive heat."

Let us go a step farther. The bowels are constipated. The D. O. and M. D. say, "That is from indigestion." The Chiropractor, "Nerves going there are paralyzed by subluxations." There is pressure upon the nerves which conveys motor mental impulse. He has analyzed symptoms back to *cause*. Every symptom is followed thru the same analysis, back to primary sources.

The osteopath is trying to build a magnificent castle upon a quicksand basis with a sympathetic nervous system and a reflex action. Every time he lays a brick it sinks. At times he feels certain he has it settled, but when pressure from other sources is more squeezing he will endeavor to sink some more another time. He is following in Chiropractic tracks very fast. This he regrets doing, but *The P. S. C.* is forcing him to the issue and time is coming when, if an osteopath desires to keep up in the race, he will be in the band wagon with us. His party spirit is commendable so long as it be practical, but it soon becomes one of a multitude of armaments. Then it is throwing sand in the wheels, turning one's back against, flying in the face of, kicking against the pricks of Chiropractic and like crossing one's tracks, to trying to stem the torrent of Chiropractic.

Of the following two systems I prefer the urinary, as it is the best to study systematically. We took these vague organs and resolved them back to original tissues. Each was resolved to function. The definite path or avenue of each nerve to each tissue was located. The structures, which combined to make an organ, were found; two or more organs put together, making a system of irrigation, and in the urinary system we found, or grouped together, organs which worked harmoniously. Innate was shown to be capable of coming in contact with every tissue cell both day and night, from life to death. When you can get that specific, you are reaching something which is scientific and cannot be answered in any other form.

We shall next encroach upon what is to me one of the most interesting and necessary physiological truths, long ignored—Serous Circulation. I am glad it has been brot out. Many have remarked, "It is a surprise that *you* should have discovered it." My reply was, "That I should have discovered it is not astonishing, but the wonderful feature is, why it was not discovered before?" M. D.'s have been cutting, mutilating, butchering thousands of bodies, both dead and alive, and they have not deduced today anything relative to serous circulation, which I claim is the very ma-

terial foundation that holds physical man together. You might have a bushel of tissue and unless you add water it flies to the four quarters of the globe. If the cementing material is absent then "dust to dust and earth to earth," the reverting to original conditions is the result. We cannot overlook the fact that serum, urea or water composed two-thirds of our body. While called *serous* circulation, it is, in a measure, a misnomer, because part of it is urea and part serum. I have named it serous because that is its central condition. This has been so well carried that a review would be tiresome.

All life is expressed as action, which is motion. Life is the expression of motion, and vice versa. Function is that characteristic expression of energy utilized in motion, which is given a name. Action reverts to the brain, from which its impetus, in the character of mental impulse, starts. Mental impulse enters all tissues and assumes various characters in expression.

"One impulse will be calorific." I am designating character and quality with the term "impulse" rather than to say calorific nerve, secretory nerve, etc. On the reverse, all nerves are nerves and alike, but the impulse varies just as much as vibrations vary. For instance, I could talk into twelve telephones at once, providing all had a connecting trumpet to one large trumpet which centered at my mouth. These twelve telephones would have twenty-four wires. Wires are wires—all alike—yet in a five minutes' conversation I presume there would be possibly 4,000 different characters of vibrations passing over these wires.

It is the character of the vibration, passing over the wire which makes the sound different at the other end. It would be foolish to say hot wire, cold wire, simply because that word indicates the current passing over the wire, or the character. Vibration is what makes the difference at the other end of the wire—not that the wires differ. It is the impulse that is calorific, excretive, reparative, etc., because impulses differ in the number of foruns that come together to make that particular mentiforum.

B. C.		O ————— O						T. C.
I	am	go-ing	down	town	to	see	Wales.	
1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0
4	3	1	1	6	7	9	0	9
2	2	9	8	9	4	7	8	2
4	2	2	4	3	8	3	6	2

I want this sentence to pass from the brain cell to the tissue cell because I want the intelligence behind that cell to receive the successive series of vibrations and interpret them. We will say that the steady, permanent voltage, passing afferently along this wire is equivalent to 10,000 vibrations per second for a given distance, between the tissue cell and the brain cell (which we will say by way of illustration is four feet). The consideration of quantity, time and distance is entered. When we enter quantity,

time and distance, we are beginning to consider speed as a requisite.

We have said that this steady voltage of 10,000 vibrations is the normal flow currents. The 10,000 vibrations are going to pick up 424 vibrations when the word "I" is spoken. That passes on out to the tissue cell; then in the next second the person uses the word "am," which is equivalent to 322 vibrations; immediately the 10,000 vibrations pick up the word and that travels on, immediately following the one above, and then the word "go" comes on and the syllable "ing," and it travels onward after the rest; then we take the last word, "Wales." The permanent vibration of 10,000 picks up 922 additional vibrations.

Now, we notice that each quantity of vibration is different, consequently each character of vibration, when it reaches the brain cell, is immediately interpreted so you have a succession of very rapid interpretations taking place at the brain cell; as fast as they keep coming in they are interpreted until the sentence is finished and the sum total of eight quantities is idealized, until you have the ideation: "I am going down town to see Wales."

We have said that 424 vibrations go to make up the word "I," then I is made up of 424 given units of force and we call these force units FORUNS. When they reach the brain cell they reach an ENCEFORUN; the brain cell forun acts upon one of these force units, technically known as an AFFNEUROFORUN, and interprets it; the process of interpretation is called INTERPREFORUN and is interpreted by the MENTIFORUN; then comes the return half of the cycle.

Whatever force the educated brain gets comes from Innate. The educated brain (mind) says "It," but we took "we" to say it. We get all our intelligence and thought from one source, altho we have two brains divided into two lobes or portions. The educated brain in itself can do nothing without the power which comes from the Innate mind; so you say, where did I get the power to say "it"? I did not say it—we did.

You have received from the periphery an impression, or a successive series of impressions which are equivalent to successive grades or quantities of vibrations. You have interpreted them and this brings forth the necessary intellectual adaptation—the adaptation is in your brain cell in order to have a thought—"I am going down town to see Wales." Suppose I have been telling you something about Wales which causes you to think you, too, will go to see him.

The brain cell is like a factory; it begins to manufacture, thru the process of transformation, thoughts which are products just as much as the juices of the body, etc. Thoughts are the expression of the function of brain cells in the thinker brain. For you to have the thought in mind that I am going down town to see Wales you had to form vibrations equivalent to those which I received. As your thoughts were manufactured they traveled to the point of interpretation.

The educated brain is active thinking about the topic of conversation passing between itself and another educated brain, the subject being, for example, beefsteak and potatoes. Presently the other party leaves—you are lone—practically no impressions are being received, externally, which would have any possible relation or bearing upon the Matterhorn in Switzerland, and yet we find without any apparent incentive the mind blends from the things before us to things thousands of miles away, and we wonder why, or how.

This is but drawing upon the impressions which have already been interpreted and recorded in the educated mind (memory), perhaps hours, weeks or years before, when we have read an article or seen an illustration of the Matterhorn, then gradually blending with the Matterhorn a distinctly original idea comes forth which has never been thought before by human mind; i. e., so far as we can find trace of it. There has been no impression made upon the educated mind and regarding this subject, because it has not existed in the realm of analytical thought, printed or spoken, so far as we know. Where did that thought come from?

Innate Intelligence is Infinite—it knows everything, all things, all places, altho its individualized labor is confined to one body. But for a perfect body to be made, the mind behind had to have an education upon many other correlative facts which seemingly obliterate this connection or communication with the human body, which facts are really necessary to be able to make material education in our material body.

The thoughts coming from apparently original sources are but the very close communion between the Innate Mind, through its definite function, of creation of Innate thoughts in the Innate brain; then the transmission of these thoughts thru the Innate brain over efferent fibres to the educated brains where they are received as impressions. The impressions are in turn presented in the educated brain as apparently a new thought—they are interpreted to the best ability of the educated mind in the educated brain and are consequently educationally expressed. While they are original thoughts to the educated mind, they are “old as the hills” to the Innate Mind—the educated world now has an “original” thought coming from the “Innate mind.”

Going back to our first illustration, I wish to impress upon you the fact that Innate Intelligence is so powerful that she can be forming the words and express others simultaneously. She can be forming 100 words, transmit 100 words and express 100 words, and do it all in a continuous and endless stream, so much so that these thoughts are poured forth much as rains from the heavens, a continuous flow of thoughts, a continuous volume of words being expressed at the afferent ending of nerves.

This brings to our minds again the idea of how nicely Innate Intelligence modifies the quality of vibrations to suit the adaptation necessary under our observations. I wish to know definitely just how quickly one cycle takes place, from the moment the vibra-

tion is received until it has passed thru all the processes back to the intellectual adaptation.

While our illustration is hypothetical, you have overlooked the fact brought out a few mornings ago—it is normal at every stage. As long as no pressure exists 10,000 voltage is normal, and when you say “I” 10,242 is still normal—equivalent to natural stages; each one of those is the limit under the circumstances; each is the capacity at that time, considering the circumstances that it is dealing with; each word is its capacity at that moment, but we must have some basis to stand on. I do not know how much power is passing thru this telephone, but as soon as the receiver is taken off, I have made connection and the word travels on.

We next assumed the subject of functions. Function is characteristic action. All life is expressed as action, which is motion. Life is the expression of motion, and vice versa.

Function is that characteristic expression of energy, utilized in motion, which is given a name. Action reverts to the brain from which its impetus, in the character of mental impulse, starts. Mental impulse enters all tissues and assumes characters in expression. That is, one impulse will be calorific; others, excretory, secretory; reparatory, etc. The motor function causes churning food in the stomach, or issues juice to lubricate the mouth. The function is but naming a peculiar type of action.

In the foundation of function we led every motor impulse to the brain, giving it a starting point, which the M. D. does not do. *He* does not know where it comes from or what it is. His study is incomplete. He looks upon man from a physical standpoint and fixes up a chemical compound and gives it to the physical disease. If he ever gets beyond the feathering of his nest, taking care of number one, furthering some professional end, he says it is “Nature,” which is significant but not making both ends meet; out at the elbows; dead broke; is being put to flight by a person who is on the scent in hunting for facts.

Chiropractic has assumed a new position, thrown aside the worn clothes; has bought no pigs in the poke, tempting superstitions; assumed no false pretenses without ballast, happen what may basis; but on the contrary has mounted guard; reached sure ground; made the coast clear; come forth from the dusky woods; caused storms to be blown over and has analyzed what *Innate* is, where *Innate* works, what *Innate* does, *how* she does it, and putting it thru that *analysis* gives us the philosophical knowledge that today stands unequaled.

We also want to bring out briefly what Chiropractic is. In the *Science of Chiropractic, Vol. I*, we find it is the *science of cause of disease and art of adjusting that by hand*. Bear in mind the emphasis that I place upon those words. It is *not* a science of disease, but *its cause*. P. S. C. students, when graduating, have spent but a small portion of their time studying symptoms of diseases; the largest part is devoted to causes, *what they are and how to correct them, by hand adjustment*. That is *Chiropractic work*.

Let us analyze cause. Man is composed of two structures, soft and hard. It is a positive fact that the brain (soft tissue) transforms impulses. These pass thru *soft* substances, nerves, until they are deposited at a tissue cell, which is still a soft material. All that which makes power and expresses it is a *soft* matter.

I know of no other portion of the body, aside from the spinal column, where the nerves (soft substances) are surrounded, entirely by hard substances. I know that frequently they lie up against a hard substance and may be surrounded by same on three sides, but there is always remaining an avenue of escape on the other side, and it is only when they are entirely surrounded that they can be constricted; not otherwise.

Do nerves—soft substances—pass thru, around, or are they encompassed entirely by a hard substance? The brain is enclosed within the skull, which is its dome. Thru the vertebral column is a long canal containing the spinal cord. From this issue bundles of nerves thru little openings, formed upon the sides of the spinal column, technically called intervertebral foramina. These apertures can be enlarged or made smaller by normal or abnormal movements of vertebræ upon their articulations.

Suppose, while performing the thousand and one occupations, you receive a sudden wrench, twist or strain; cause a subluxation; make that or those openings smaller than normal and cause a constriction. Can you not see that *occlusion would shut off the transmission of mental impulses, that which is power to a body thru nerves?* Shut off force and what is the result? *Inability to perform action.* Partial lack of action means disease; if complete, it is death. No action—death; partial action—abnormal conditions; partial death—disease.

The disease producer, in man and woman, *the cause of all diseases* is in subluxations of vertebrae, impinging nerves as they pass thru the spinal column, at various regions, because *that is the only place in the human body where it is possible to have a nerve so constricted as to shut off mental impulses.* There is no other place where nerves are surrounded by bone. Therefore, Chiropractic is fundamentally based around an exact and precise knowledge of the spinal column, because that is man's backbone. You have heard the quotation, "Brace up; show the world you have *backbone.*"

In the lecture, "Disease; What It Is and Its Cause," the first elaboration was upon the inability or excess of action—disease. Only *two* are a possibility; that tissue in which there is not enough action or its opposite, too much; as shown in Diabetes or Bright's Disease of the kidneys. The bowels may represent the two contrasts, as in diarrhoea and constipation. The same is true of heat or any other function. Just what name symptoms ought to have depends upon *who* is to entitle them; in *what way* he proceeds and *what process* is used. The M. D. diagnoses symptoms and re-echoes thousands of diseases. What difference does it make whether you have a temperature of 98.1 or 98.6, and the different

grades constitute a disease? The cause is the same—it is a graded degree of pressure, from 1 to 100 per cent—it is a different grade of pressure, and why dwell upon it at length?

The Chiropractor *analyzes* effects to two diseases, excess or lack of, any one or a number of combinations between nine primary functions. *The naming of the cause is our profession.*

According to medical principles the latitude between opinions is only restricted to the number of physicians who see the case. One man, for example, called upon and paid for sixteen different examinations by the best physicians in New York City. For an answer to "What was the disease," he received sixteen different diagnoses to the same symptoms given.

In the latter lecture we elaborated very carefully the allegorical illustration of man as compared with a factory. We likened him to a complete factory with its many machines, and as they were brought to light we could see how much greater man was than the factory and how man displays greater discerning judgment considering the factory than when considering self or family. In mechanical work there are only 310 movements, and they are in the human body.

Man cannot make a ball and socket joint so nice, a ball-bearing proposition so perfect but what he will find its superior in the human body.

Circulations, Serous and Blood

Serous Circulation is an original theme. My aim is to present these thots in as thoro and interesting a manner as possible. Undoubtedly *your* dog is petted more, for he represents your personal labors. This dogma is mine. As its discoverer and developer, I have greater interest in its propagation. Fundamentally, there is no one function so absolutely necessary to the maintenance of life as the serous circulation. The more it is studied the greater is the interest. That it has never been conceived before is no fault of mine and is one great evidence of its truth, for predecessors have been working effects, *not foundation principles*.

Go into medicine, if you will; study therapeutics in any form, and wherein have they raised one foundation principle. There isn't a single physiological effect in a man's body that is studied by them in a truthful manner. With this fact before us and the further fact that they do nothing but treat effects, can you blame me for making this statement, broad as it is?

Contrary to many ideas, which eventually became great, this discovery was not accidental, but the outcome of months of study to answer "why" for abnormal symptoms yet unsolved.

By way of explanation: Certain patients enter the clinic, presenting peculiar conditions, and our first thought would be, "Why so and so?" Then I would consult *Butler, Osler* or a dozen other authorities in my library, and I could find no reason, look where I would; so finding that they did not answer it, presumably because they could not, I turned in and answered it myself, so that what you have here is the product of hundreds of questions I have asked myself.

Undoubtedly about the same arguments were used against Harvey as against the serous circulation. The cause of all disease is not in the air, in vegetables, etc., but IN MAN. (When you find that all the medical profession are endorsing a certain thing, you take the opposite and you will have the truth.)

If you want to get some idea of where Chiropractic stands today just imagine you are at the entrance to a cave which has no limit as to the height or depth and whose walls are covered with glittering gems. Reach out your hand and take a jewel from its place, turn it over and pass it to the man behind you, who has been too timid to do the same. That is where we are today, barely on the threshold and with only two or three gems in our hands, but as we go on we will gradually get bolder and lay hold of more and more.

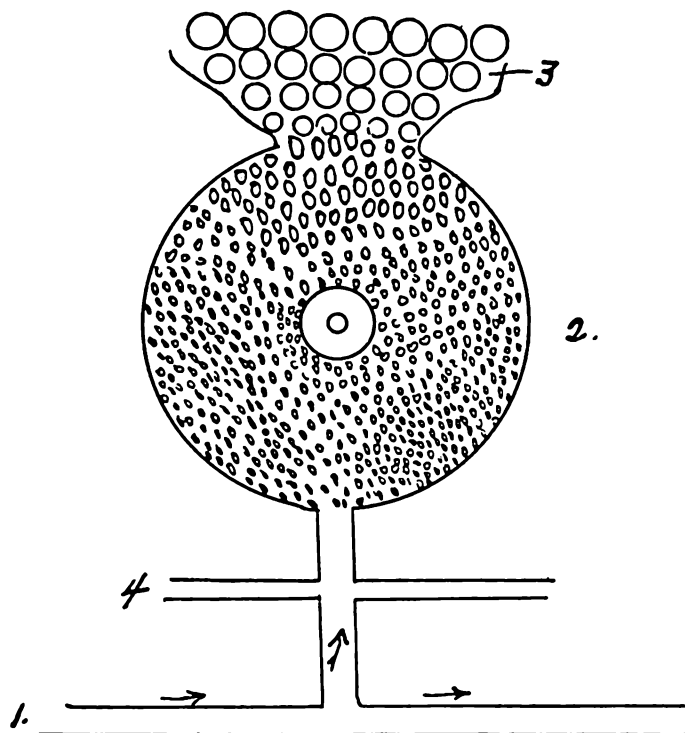
The arguments to be used against this principle will be, "If it has existed, *why* (a question they have not answered on many other subjects, let alone this) did not the M. D.'s know it? It cannot be so, or they would be teaching it." *Experience* has proven, not

alone to *The P. S. C.*, but all liberal schools, that *medical* knowledge (?) is contrary to *natural* reasoning. The strong opposition, from that quarter, is the most potent evidence of its exactness.

Upset medical knowledge and you have the truth. When they say "you have caught a cold," reverse it with, "the heat has caught you"; or "I will give you something to move the bowels" with "the bowels have increased their action to get rid of the intruder." When an M. D. maintains, "The knife cut the finger," invert it to "The finger came in contact with the knife."

A mere handful of mentalites, who *dare* to think, have opened a large cave in which are many uncut, priceless jewels. It costs money to work any mine and as capital permits, shafts and "runs" will be made deeper and show larger and more brilliant gems for study.

In one lecture the conclusion was reached that the embryo was a multiplicity of germs matured to cells. Tonight the subject has to do with that substance which *does* the expanding. The germinal structure of a cell, in minute depleted form, becomes enlarged.



Schematic drawing to illustrate cellular expansion and how serum is a necessity. The larger or bulbous portion represents a tissue cell center. 1, serous flow; 2, tissue center; 3, expanded cells either in process or leaving or having left and gone forward; 4, blood flow.

"The typical organic cell consists from without inward of cell membrane, protoplasmic contents, nucleus, and nucleolus. Whether the cell membrane is anything more than the wall, or outer surface of the protoplasm, is open to further investigation. The composition of the protoplasm (the fluidic contents of the cell) varies with the age of the cell. At first it consists of a homogeneous albuminoid (resembling albumen, like the white of an egg); but later there appear granulations, coloring, or fatty matter, and the whole may become hardened into horn, or bone. The nucleus (kernel) examined with the microscope presents the appearance of a sphere, the contents of which are more or less liquid and transparent." (Dutton's Anatomy.)

Serous circulation is that dissemination of liquids passing thru connective and supportive tissues and other *intercellular* membranes of the body. Passing between all elemental cells it remains for such distinctive kind of cell to absorb to itself some of this circulatory material for its metabolic needs—this becomes, then, the *intracellular* circulation. One dozen, hundred or thousand cells may be involved in a circumscribed area, in excess or lack of this secretion; or its functions of excretion may be implicated in one or more of the many combinations, the cause of each still being the lack of characteristic mental impulses. Whether it gets it in proper quantities and makes of it the consistent quality needed or not, depends entirely upon the amount of mental impulses that go to each cell thru nerves. Each cell acts as an absorber of its own. This idea makes the individual areas a specific study and gives to each cell its individual cellular activity as regards the serous circulation. While the circulation is general, yet its utilization becomes specific to each cell.

Look to that which expands everything, and *water*, in one form or another, will be the result. No vegetable substance can be taken, but what, if placed in water, will expand. For instance, the sponge, bean, wood or corn. The hyacinth as a bulb represents little until placed in water and then the transformation into a beautiful odiferous flower takes place. Place a grain of corn in the ground; as long as the earth remains dry it cannot expand or mature. The early coming of a shower after a dry siege or drought is welcomed by the tillers of the soil. Why? Because he knowingly, recognizes one of the greatest fundamental principles which the most expert physicians have ignored. Can you blame the latter for trying to defeat this attempt to show them their long unknown mistakes?

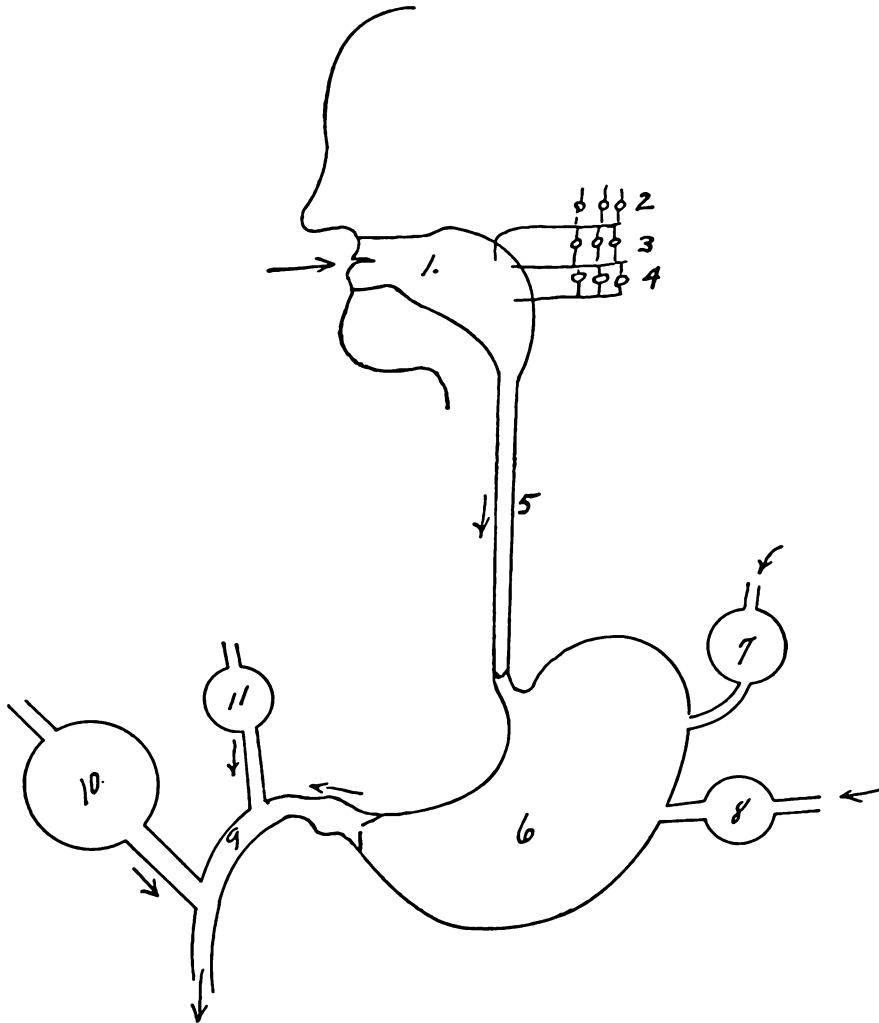
"Heat—The *force*, agent, or principle in nature upon which depends the state of bodies as solid, fluid or aeriform, and which is recognized by its effects in the phenomena of expansion, fusion, evaporation etc.; and which, as developed from its natural resources, fire, the sun's rays, mechanical action, chemical combination, etc., becomes directly known to us thru the sense of feeling"—*Webster*. Heat has long been regarded by many, as sufficient in itself to increase the size of tissue, but this is not the case. The

size of an inflamed arc, for instance, may be smaller than when normal or it may be larger. The size depends upon whether more serum, in modified forms, has been drawn into or placed within the cell with counteracting intentions, or if the amount has been decreased for the same object. If more serum exists than is normal within a certain limited district, and *excessive* heat is added, we have the example of a boil; if, on the reverse, we have the opposite, excessive heat with a lack of serum, we have the condition of a fever where the body wastes away. These are but two combinations that are found by systematically studying the serous circulation in combination with other functions in relative degrees.

Applied Chiropractic knowledge proves that water, in various consistencies, is indispensable to expand germinal cells. In the clinic, a few days ago, the symptoms of case No. 17 were traced, one by one, and combined with the history, which proved that the physiological difficulty was an absence, in large per cent, of certain general liquids. A Sherlock Holmes analysis was applied, the details brought forth, deductions were decisive for a circulation of liquid substances *other than blood*. The latter theories did, could nor would not fit the given symptoms of this case, which is but a sample of what is daily brought before your attention. Heretofore medicine and osteopathy have claimed that blood was the necessary conveyor. They haven't made one step forward in principle since Harvey's time, outside of creating theories and retracting them when proven fallible.

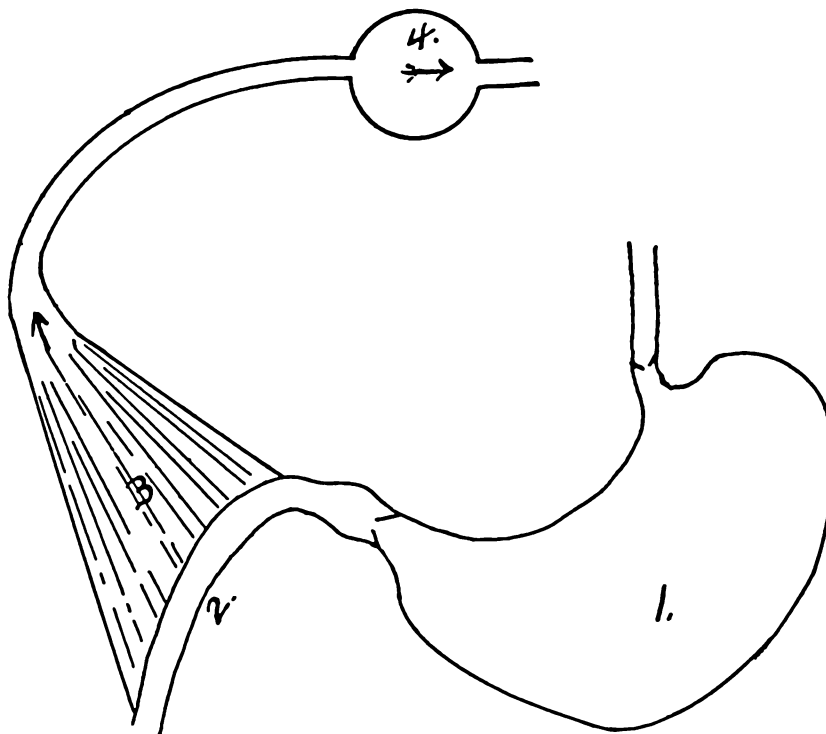
Considering that blood has been that *supposed* foundation of *life*, "the rule of the artery was supreme" (A. T. Still). They naturally gave to this continuous blood circulation, the spreading out or propagating of (1) serum, (2) nutrition, (3) heat, (4) repairing, (5) conveyor of "life." Everything, good, bad, or indifferent has been heaped at the doors of this "Ship of State."

The Serous Circulation can be briefly mapped as follows:
Transforming Apparatus. (Process No. 1.) Those viscera which convert water and food to serum.



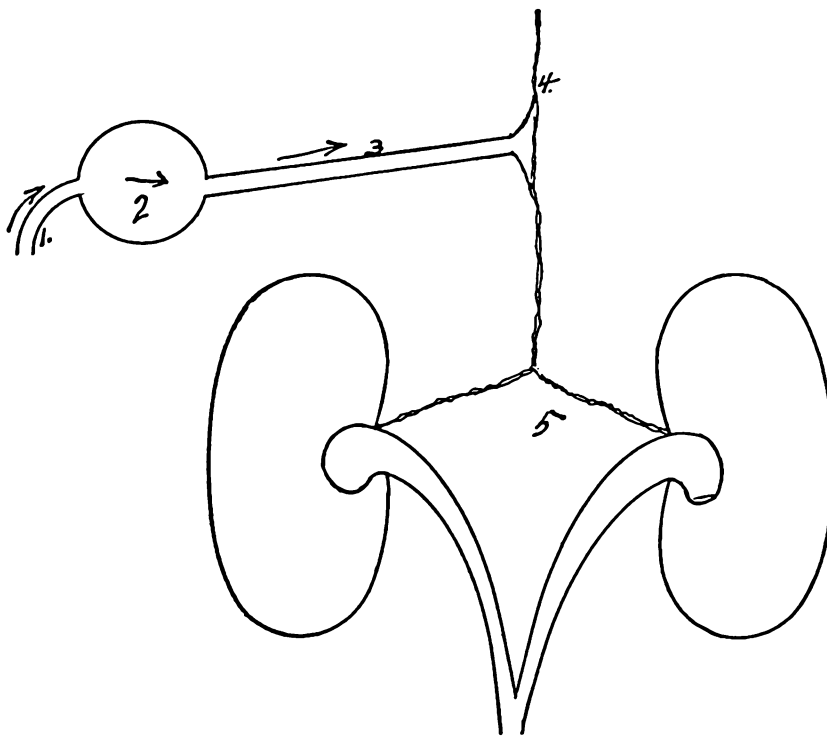
Schematic drawing to illustrate the principles of Process No. 1; 1, mouth; 2-3-4, salivary glands; 5, æsophagus; 6, stomach; 7, spleen; 8, gastric glands; 9, small intestines; 10 liver; 11, Pancreas.

Serous Apparatus. (Process No. 2.) Those serous or connective structures which receive serum from small intestines and convey it to the glands or tissues which utilize it in process No. 3.



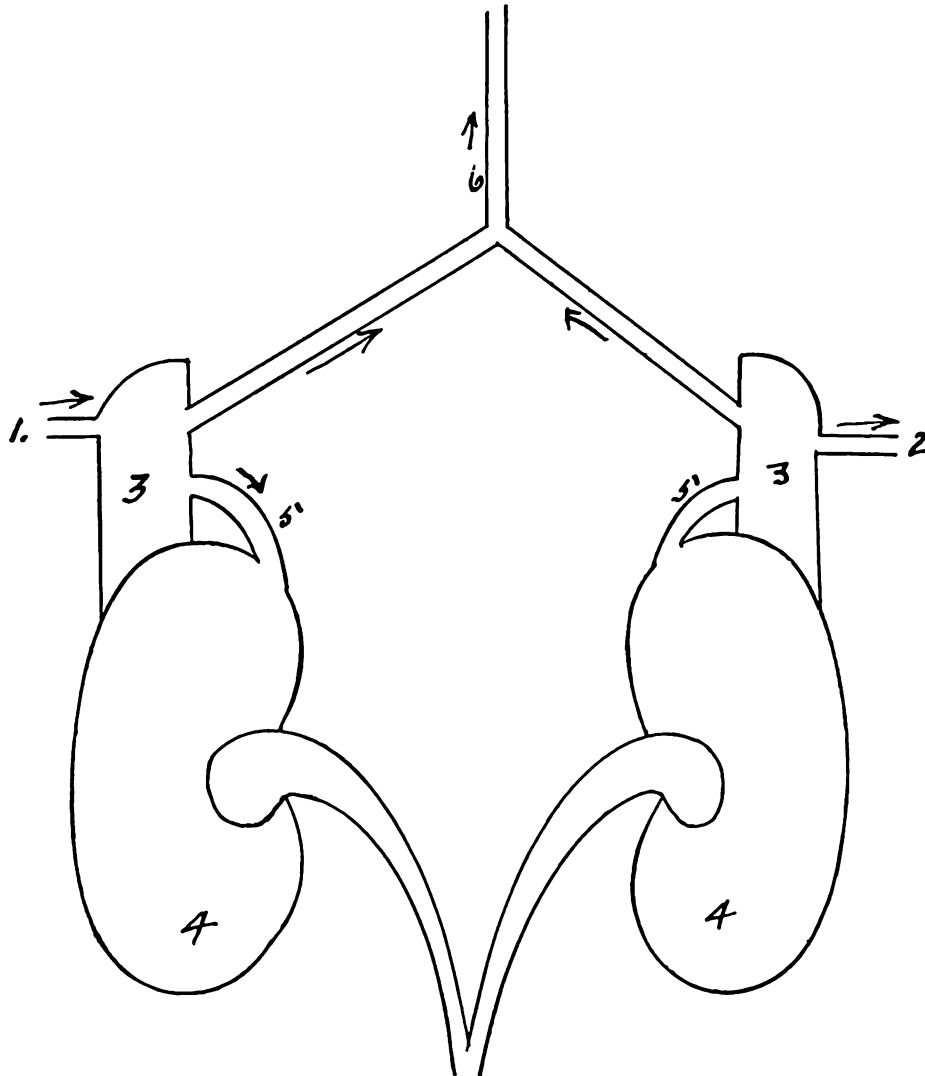
Schematic drawing to illustrate Process No. 2. 1, stomach; 2, small intestines; 3 process No. 2; 4 gland or other tissue.

Ureaic Apparatus. (Process No. 3.) The tissues that transmit exuded fluids after process No. 2 from glands and tissues (the intermediates) in its onward progression to process No. 4.



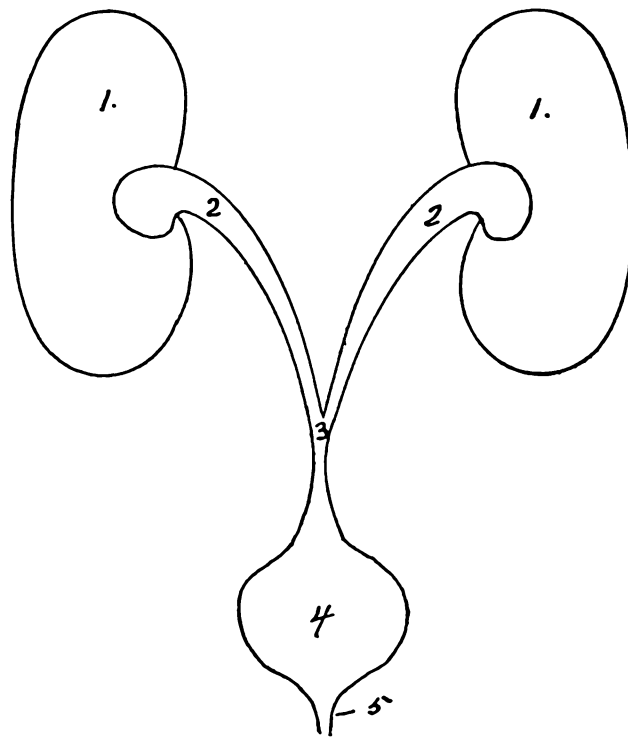
Schematic drawing to illustrate Process No. 3, 1, serous circulation; 2, gland; 3, ureaic circulation; 4, tissue wall, more particularly the skin; 5, urinary apparatus.

Reninogen Apparatus. (Process No. 4.) The suprarenal capsules or glands which create of the incoming urea, reninogen, another liquid which in its turn is conveyed, in its present transformed state, to some other organ, more or less distant, for further utilization in perfecting a metabolic triunity; thence passing it thru the necessary transformations to create this; thence conducting it to the kidneys thru well defined ducts, and expelling forward to process No. 5.



Schematic drawing to illustrate Process No. 4. 1, serous circulation; 2, urear circulation; 3, adrenals; 4, kidneys; 5, urea between adrenals and kidneys; 6 reninogen on passage back to body to manufacture other juices.

Urinary Apparatus. (Process No. 5.) Those organs, the kidneys, ureters, bladder and urethra, which convert urea to urine and convey the latter to the external after it has passed process No. 5



Schematic drawing to illustrate Process No. 5. 1, kidneys; 2, ureters; 3, ureters on passage to bladder; 4, bladder; 5, urethra.

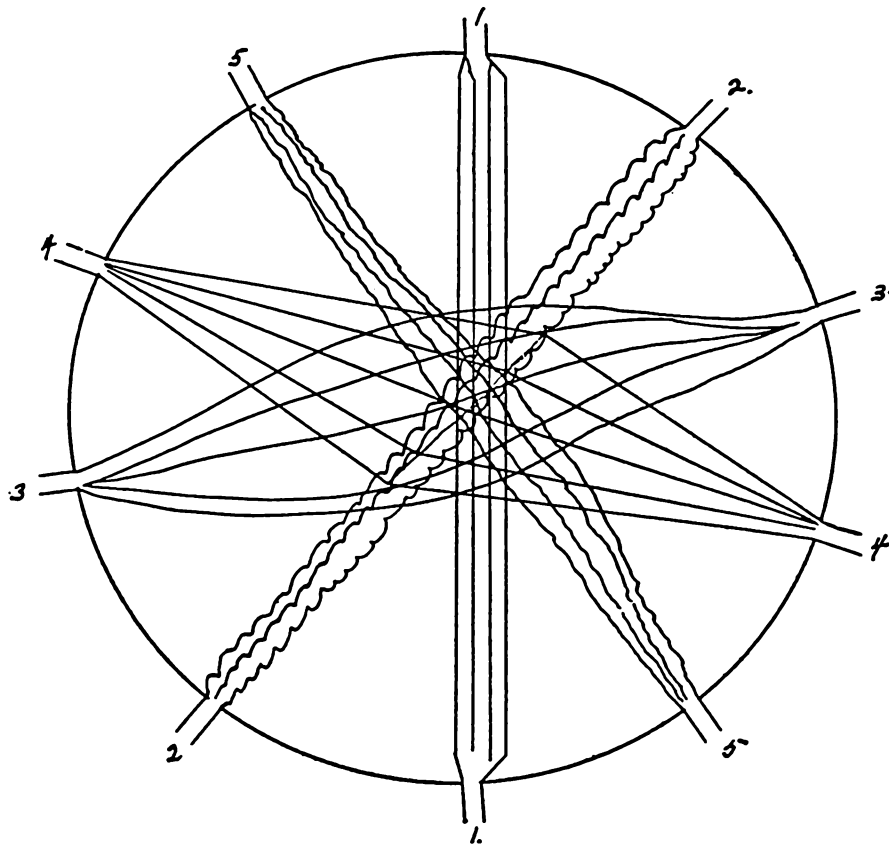
We will take it for granted that we have a mouth into which we are going to start all such substances as we call food (bread, meat, vegetables, water, etc.), and there they are chewed up and mixed with the mucous juices of the mouth. Then the bolus of food is swallowed and all the way down the œsophagus is taking more mucous with it, so that there is no trouble in its going down. When it gets to the stomach it is mixed with the gastric juice, then with splenic and intestinal juices in their turn, as well as pancreatic juice and bile.

Then comes in the second division, as brought out above.

Brown-Sequard says that when one adrenal is removed from the body the muscles of the animal lose their tonicity, and if both are removed, the animal dies.

Each gland in the body under our classification has at least six circulations:

1. Intercellular—serum coming in on one side and leaving on the other, as urea.
2. Intracellular—urea entering on one side and leaving on the other as the product for which the gland is noted.
3. Arterial and venous blood.
4. Mental impulse circulation and our own cycles.
5. Portal Circulation in the liver.
6. Lymphatic circulation common to all glands.



Schematic drawing to illustrate the various and multiple circulations of a tissue cell. This example might have been the liver because of the extra circulation having been added. 1-1, intercellular circulation of serum-nourishment; 2-2, arterial and venous, hepatic circulation-supplying oxygen to and carrying carbon dioxide from; 3-3, intracellular circulation of serum-internal secretion from which issues bile; 4-4, nerve circulation-mental impulses, function, impression, etc.; 5-5, portal circulation-chemical composition of character different from any other.

As yet, I have not made any attempts to define the paths and say that just such and such tissue has such and such serious channels. When you step into the areas of connective and serious tissues, you will find that anatomy and physiology are silent.

All liquids under normal conditions enter the mouth. The epidermis absorbs a *very small* percentage even if remaining some time in a bath. If immersed in an *ice-cold bath*, the pores would close like so many grates. If a Turkish or other *hot bath* is taken, the perspiration is *from the inside, outward*. Either condition is sufficient to make the intake extremely limited. There is, from practical deduction, nothing taken in by the epidermis.

"Kidney Diseases—*The relation of the secretion of the skin to that of the kidneys is a very close one. Thus copious secretions of urine, or watery evacuations from the alimentary canal, coincide with dryness of the skin; abundant perspiration and scanty urine generally go together. In the condition known as uraemia, when the kidneys secrete little or no urine, the percentage of urea rises in the sweat; the sputum and the saliva also contain urea under these circumstances. In some of these cases the skin secretes so abundantly that when the sweat dries on the skin the patient is covered with a coating of urea crystals. The sweat, like the urine, must be regarded as an excretion, the secreting cells eliminating substances formed elsewhere.*"—*Kirk's Physiology*, p. 579.

We can readily prove to ourselves that the assertion is true regarding those cases which secrete little urine but throw off large percentages of waste material thru the skin, by the odor, as well as dry, scaly skin.

All foods, meats or vegetable, contain a very large per cent of water. The banana could not have expanded if it had not been for the liquids. The only substance that permits the orange to enlarge, from the seed, is *water*. Orange juice is *water* with sufficient of this or that solid to transform its color and taste. You know what coffee is; 99 per cent water and 1 per cent of the bean that flavors it. What caused the coffee bean to expand? *Water*. Do you realize that tea, wine, beer, or any beverage, is *water*? Everything that waters the mouth is or represents what water has accomplished.

Water, then, is the basis of your or my existence in two ways: 1st, keeping the body expanded; 2nd, caring for the bodies of growing things in a normal condition to maintain their entity. It is *the* essential for living.

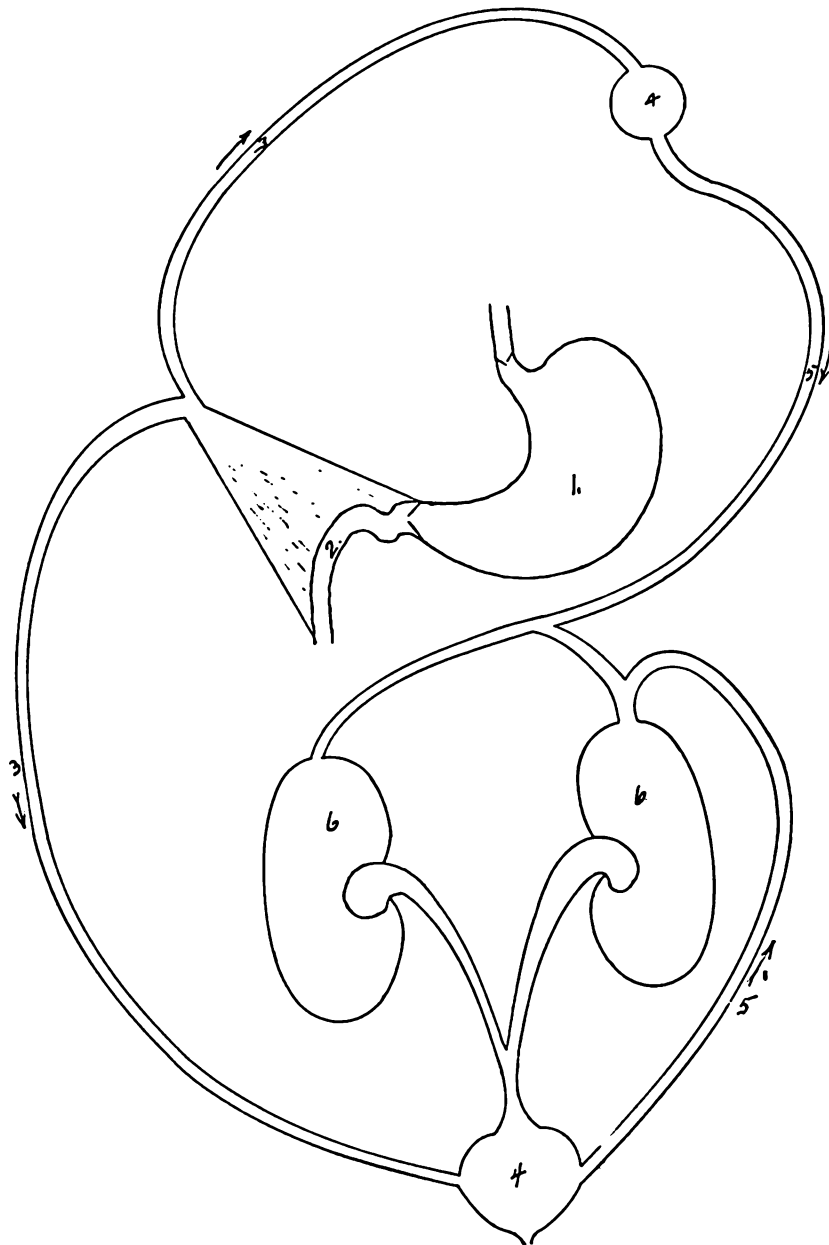
The argument may be brot forth that air is more essential than water, as man can live hours, days, weeks, without the latter, and but a very few minutes without the former. On this question *Webster* says: "Air—The *fluid* which we breathe, and which surrounds the earth. Modern science has shown that it consists essentially of two gases, oxygen and nitrogen, in the proportion of 20.81 parts of the former to 70.19 of the latter" (both equal to the whole of 100 per cent). A question could be raised on "what is 'fluid?'" In reply, *Webster* further declares: "*Liquid* or Gaseous—A 'liquid' is, 'Liquid and fluid are terms often used synonymously, but fluid has the broader signification. All liquids are fluids, but many fluids, as air and the gases, are not liquids.'"

If an individual dismisses the water problem from his existence, eats food absolutely dry, his duration on this plane would be short and bitter, for no death is so horrible as that of the parched traveler on a desert, unable to locate a drop of moisture.

Saliva is 993 out of 1,000 parts water. In speaking of fæces, *Kirk's Physiology*, p. 517, 17th Ed., says: "In health from 68 to 82 per cent; in diarrhoea it is more abundant still"; in costiveness it would be less. Semen is 82 per cent liquid and 18 per cent

solid, according to *Gray*, p. 1474, 1905 Ed. *Gray* further says: "The fluid portion of *semen carries and probably nourishes the living cell known as spermatozoids.*"

The water we drink and the food we eat pass thru at least five channels. As they enter the mouth, they are mixed with the saliva; in the stomach they are churned with splenic fluid and become chyme. From thence it proceeds thru the first third of the small intestine, the duodenum, and becomes mingled with pancreatic juices and bile, and is called chyle. This is in turn constantly blended with mucin and is the transitional change of the original fluid. Saliva is the product of three sets of glands; splenic fluid is the fruit of the spleen; the pancreatic juice is the issue following activity of the gland, which it is named after, and the bile is the excretion of the liver. Proceeding into the ileum (the end of the period of digestion) the chyle is absorbed, taken up by and passed along thru distinct tissues and channels of its own, which is known today under many heads, e. g., connective and supportive tissues, epithelium, mucous membranes or serous tissues. Call it what you may, it is but a *transitional* serous structure. This fluid (now serum) is advanced to be distributed to any and all organs, in quantities demanded. It goes to the brain, feet or anywhere in between, and is utilized. A large proportion, in its circulation, goes to the glands collectively, each receiving its needed amount.



Schematic drawing to illustrate efferent and afferent portions of the serous circulation. 1, stomach; 2, small intestine; 3, efferent portion going to gland or other tissue 4; 4, a gland or other tissue; 5, afferent portion of serous circulation; 6, kidneys.

I mention in one place that the food is mixed with the mucous and gastric juice and splenic fluid. I wish to further comment that I believe the gastric juice to be only the combination of the juices produced by the glands of the stomach and the splenic fluid, which is to maintain that there is a direct connection between the spleen and the stomach. This is contrary to all anatomies; they refer to the spleen as a "ductless gland," and ascribe to it no known function. It is in the body and it must have a purpose, even if anatomists do not know what it is.

Some years ago we had in the infirmary a patient with an enlarged spleen. It took in the entire abdominal region and must have weighed, when in the patient, much more than when removed from the body—92 ounces. A normal spleen weighs between 6 and 8 ounces. Under dissection a direct tube was found to lead from the spleen into the fundus of the stomach. This was *not* an artery or vein but a direct tube from which splenic fluid could pass into the stomach.

Under adjustment the spleen rapidly decreased in size, and whereas, before, the bowels hardly ever moved, after adjustment they began to move very profusely; patient sometimes going to stool 20 to 60 times an hour and passing from an ounce to six or eight ounces of a liquid which burrled the intestines and bowels—he could feel it the moment it left the stomach.

In proportion as we adjust the spleen place we could check or increase this flow; if we gave 3 or 4 a day the flow would increase. This liquid passed was of an oily, greenish-yellow consistency and color, and was analyzed as splenic fluid by a chemist who did not know where it came from or anything about it except what he gained from his own work. This spleen is now in the studio, and although it is not so distinct as it was formerly, yet the opening can still be seen. This tube was named in honor of its discoverer, Ductus Palmerii.

As you are no doubt wondering about this patient, I would say that for family and financial reasons (probably), as well as discouragement over his physical condition, the patient (an elderly man) committed suicide.

Under normal conditions I would ascribe to the spleen the function of secreting one of the essential liquids (or largest portion of it) which goes to make the combined chemical known as gastric juice. If physiologists and anatomists do not know the function they will tell you that just before digestion the spleen is at its fullest and during digestion at its lowest—and still they call it a ductless gland.

Glands are most important organs. It is these which transform or convert serum to the chemical—a necessity to reduce external substances to internal conditions for absorption—the smallest proportion going to muscles, bones ligaments, etc. After osmosing into and through the cortical substance of glands, it and the other juices which are the product of other glands, combined, are excreted

and technically known by the name which physiologists have seen fit to suggest.

It passes to the muscles as serum, is seeped through them and becomes a liquid. The waste, on the other side, is *urea*. That waste portion which passes through the epidermis is perspiration, although technically it is *urea*.

In, around and between all deeper muscular fibres is a very fine connective tissue, serous in function, which I will give briefly, as follows:

No. 2 is the serous circulation—a serous membrane conveying the serum to No. 1 (the muscles).

No. 3 is the conveyor of the *urea* from the muscle. The serum approaches the muscles from the left; now by a process of somosis, gradually working and worming its way through, into, and between the muscle cells, so that by the time it has worked its way through it has left behind certain nutritive materials that the cells, themselves, extract from it; consequently the product emerging on the right is a waste product, and we call it *urea*.

I should like to be able to show you a unit of serum approaching a unit cell, then that unit cell in action (subtracting the nutritive materials from the serum), then the unit of expulsion (that which is left of the serum), leaving the muscle cell as a unit of *urea*—afterward, the accumulation of many units of *urea* from many cells which are collected in the kidneys (some in the skin, expelled as perspiration) and by them expelled through the proper with which to illustrate these things, I must explain it as best I can upon the basis I have given.

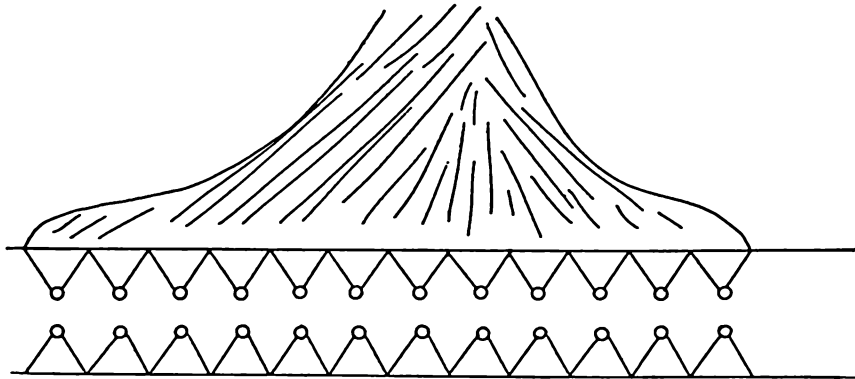
Such cannot reach the surface, but must pass onward and continue into the circulation, eventually reaching the external world by way of kidneys.

You will notice, pre-eminently, that I differentiate between liquid and solid food, although this one circulation carries and distributes both. The value of foods is just so much as its consistency is carried in soluble form, with corresponding chemicals. Do not think me a water hobbyist, far from it, but this body is the product of indispensable principles which must be deduced regardless of where and what they reach. This machine represents the aggregation of liquids and chemicals, therefore must be maintained, likewise properly prepared. "Properly prepared" means that man, *externally cannot* mix or compute the relative values and proper quantities, such as may be and are needed in the human, when abnormal. The mixing or conversions are within the jurisdiction of *Innate* alone, who was the first and is *the only master chemist*.

When we study the glandular system of man's body, it is surprising to find that glands which have ducts (that are observable) have a known function and are written about, but it is *more surprising still* to find that several of the largest and many of the smallest glands in the body are regarded as ductless; consequently,

not being able to trace an inlet and outlet for secretion and excretion, we are left in the dark as regards their functions (even in 1911), and this is why I say glands, with or without ducts, are most important organs, and make no exceptions.

Water, as a *liquid* food, is digested and assimilated; passes thru each change, as does a vegetable or meat. Thence it passes to small intestine, where true preparation and absorption take place. Water in its raw state must undergo conversion, as well as solid foods, and passes every assimilating condition. Solid and liquid foods are acted upon in the same cavity, but each by its chemical necessity (constituent) to bring about its liquidization. The mechanical analogy necessary to digest liquid food would not be equal to mixing solids. The chemicals, acting upon lemon, apple or orange juices would not act upon their pulps. It may contain a part of one or the other, but the proportions will be differently adapted to the various acidities and solidities of the ingredients. Chyle (representing the nutritive qualities) is acted upon by the absorbent system, and by the same transporting medium is taken likewise to every tissue cell for utilization.

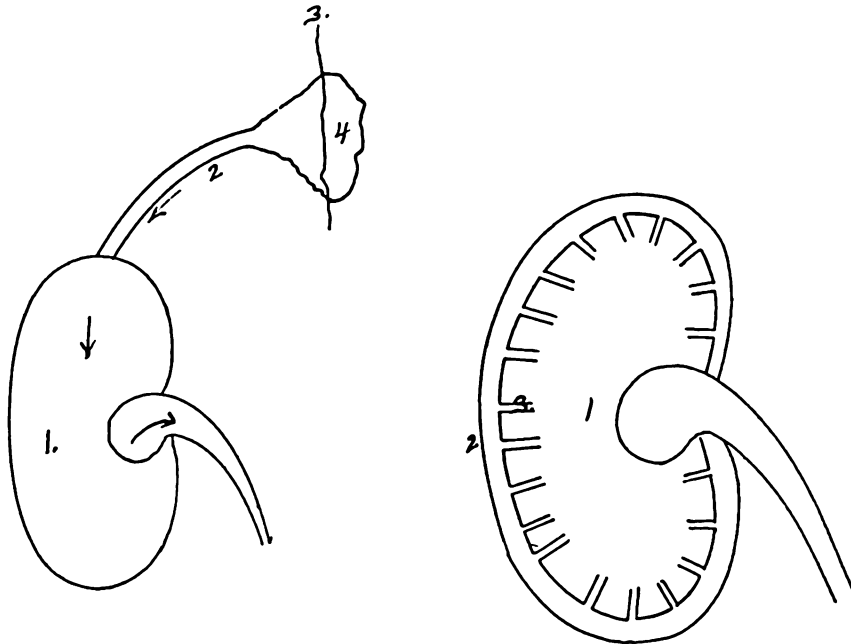


Schematic drawing to illustrate a small intestine section, portraying intestinal villi and the beginning of the serous circulation.

Liquid food is absorbed by the intestinal papillæ and carried forth by this distinct and complete serous circulation. This is as thorough, well marked, and as well defined, as to starting and ending channels as the arterial or venous circulations. It is more eminently capable of entering more intricate places than blood.

Closely investing every organ, gland, and tissue in the body, and thoroly entering into every muscular or osseous fibre is its serous membrane and this is named to denote location—pericardium, around heart; endocardium, within heart; pleura, sack of lungs, periosteum, around bones, etc. If between various viscera, it is a *supportive* membrane; and that reticulum between muscular,

cartilaginous, or osseous fibres is *connective membrane*. So minute does this subdivision become that there is not the smallest fibre or cell thereof but what has its serous tissues, so that in studying Chiropractic physiology we refer to them, in general, as "serous in function."



Schematic drawing to illustrate how dropsy can occur. 1, kidney; 2, urea conveying canal from skin; 3, skin or epidermis; 4, dropsical tissue. 1 worked in minus, hence gave 4 more than it needed.

Schematic drawing to illustrate the investing capsule and trabeculae. 1, kidney; 2, investing serous conveying capsule; 3, trabeculae.

There is not an anatomist or physiologist, outside of *The P.S.C.* who has any cognizance of or who teaches the knowledge of a serous circulation. I have been accused, several times, of purloining this subject from some antediluvian or recent medical books. It represents the methods of labor bestowed upon it, before I could prove to the *first class* (following its discovery) that it was a "possibility;" but before graduation they were satisfied of its actuality. *P. S. C.* clinics, as elucidated, redouble the fact that there is a different circulation of liquids, as serum, urea, urine, and the many glandular juices. Refer to the clinic, spoken of; entered *The P. S. C. Infirmary* with the epidermis dry and scaly. Today the

external surface is oily and moist. Students noticing the rapid change and feeling of the body, remarked: "That epidermis is perspiring now and was not a few days ago." It is pleasing to have others note these changes. Students of *The P. S. C.*, becoming thoroughly imbued with the knowledge of this study, see that, next to the discovery of the subluxation of vertebræ being the cause of disease, *this* exception has more consequence than any other developed in the last few years.

The weakest part of the spinal column is at the junction of the 12th Dorsal and 1st Lumbar. One person has passed under by examination who had not a subluxation at this place. Such displacements of vertebræ produce pressure upon nerves leading directly to the kidneys, the most important excretory organs in this system. Interference with the mental impulses, on their way to those glands, interferes with the control of these local functions.

Many authorities could be quoted to show where medical apprehensions come *very near* to accepting the idea of what *The P. S. C.* teaches as a serous circulation. Osteopaths today are handling such ideas as if they were hot irons. They slyly give it their deepest thought, but do not dare let anyone know they are studying it. Osteopathy is trying to handle this as well as many Chiropractic ideas with rubber gloves and is afraid of getting a shock. Chiropractic is the first science that dared to fearlessly pronounce subluxation to be *the physical representative of the causes* of all disease. *The P. S. C.* now takes another measure ahead and proves there is a serous circulation.

NEW DISCOVERIES AT THE ROCKEFELLER INSTITUTE

The May number of the *Journal of Experimental Medicine* records a new discovery by Doctor Meltzer, of the Rockefeller Institute, which points the way to *an explanation of one of the means by which poisons or beneficent medicines may find their way through the animal system.* Heretofore it has been taken for granted that all substances in any way affecting the body, whether introduced through the stomach or by hypodermic injections, first found their way through the venous circulation to the heart, and then were distributed by the arteries, throughout the system. It has been an axiom that cardiac activity is vital; that when the heart permanently stops beating, life ceases; that when the circulation is locally impaired, decay sets in at once. Doctor Meltzer, however, reports some *strange* results of experiments which he is still prosecuting. So far they have been confined to frogs. After subjecting the frog to an anaesthetic, the heart was in some cases separated by ligatures from the circulatory system, and in other cases actually removed. After the operation, when the effect of the ether had worn off, the frog showed for some hours almost normal conditions of life, turning over when placed upon its back, jumping when touched, etc. Various substances were then injected into the leg

or back, and the effect noted. Adrenalin, when injected, soon caused the pupils of the eyes to dilate precisely as in the case of the normal animal. This effect was still shown, though more slightly, after the frog had been dead, but kept wrapped in moist paper in a refrigerator at a uniform low temperature, from twenty-four to forty-eight hours. *Of course the drug did not reach the eyes through the ordinary circulation.* But a still more marvelous result was obtained when the eyeballs were removed from a frog twenty-four hours dead and replaced by those taken from another frog recently killed. Here was no physical connection, and yet the pupils of the eyeballs inserted dilated in less than an hour when adrenalin was injected into the body. This result was obtained, not by diffusion alone or force of gravity, for the result was the same whether the frog was suspended with the head up or otherwise. Similar experiments with strychnine showed the usual effect upon the spinal cord, producing violent tetanic convulsions, no matter where it was injected. Morphine produced remarkable and unexpected phenomena. At first the animal was quiet, then suddenly began to jump about, and finally had all the symptoms of tetanus, but all these symptoms were produced much more quickly than when the same amount of morphine was injected into frogs in which *the ordinary* circulation had not been interfered with. The experimenters believe this is due to the fact that in the normal circulation of the blood there are secretions introduced which have for their object a deterrent effect upon the poisonous action of the morphine. Doctor Meltzer concludes his preliminary paper by suggesting that the distribution of the drugs *takes place through the spaces separating tissues, and through the fluids other than those of the blood which fills these spaces, thus giving a more or less connected system of communication throughout the entire body.*

—*The Outlook*, June 3, 1911.

“Triumphant, however, as was this mode of inquiry in these and similar instances, there remained in every investigation an unsolvable residue, like the question of the origin of the force exerted by the heart referred to above in speaking of Harvey’s work; and in many other instances the questions formed a great part of the whole problem. Thus in the case of the liver careful dissection shows that minute tubes starting from all parts of the liver joined into one large canal, which opened into the small intestine, and observation and experiment taught that these tubes during life conveyed from the liver to the intestine a peculiar fluid called bile, which appeared on the one hand to originate in the liver, and on the other to be used up for some purposes in the intestine. But here the mere mechanical flow of the bile along the gall ducts, instead of being a primary, was merely of secondary importance, *and the problem of how the bile was generated and made its way into the small beginnings of the ducts was the greater part of the whole matter. This latter problem was left unsolved, and indeed for a while unattempted.* Nevertheless, the success in other directions attending the conception of organs and functions encouraged phys-

iologists to speak of the liver as an organ whose function was to secrete bile, and further led them to ignore to a large extent the great unsolved portion of the problem, and to regard the mere enunciation of the function as the chief end of physiological inquiry."

Physiology, P. 10, Britannica, Vol. 19.

"Here the question arises how it is that these protoplasmic cells, having nothing to draw upon but the common blood, which is distributed to other organs and tissues as well, are able to discharge on the other side of them into the canal the fluid urine, *which is absolutely distinct from the blood, which contains substances wholly unknown in blood, as well as substances which, tho occurring in blood, are found there in minute quantities only*, and moreover, are not found to escape from the blood into any other tissues or organs. In attempting to answer this question, we come upon an inquiry of quite a different nature from the preceding, an inquiry for the solution of which mechanical suggestions are useless. We have to deal here with the molecular actions of the protoplasmic cells. We must seek for molecular explanations of the questions, why a current sets across the cells from blood-capillary and lymph-space to the hollow canal; why the substances which emerge on the far side are so wholly unlike those which enter in on the near side; why, moreover, the intensity of this current may wax, and wane, now flooding the canal with urine, now nearly or quite drying up, why not only the intensity of the current but also the absolute and relative amount of the chemical substances carried along it are determined by events taking place in the cell itself, *being largely independent of both the quantity and quality of the blood which forms the cell's only source of supply. These and other like questions can only be solved by looking with the mind's eye, by penetrating thru careful inferences into those inner changes which we call molecular, and which no optical aid will ever reveal to the physical eye.*"

Physiology, P. 17, Britannica. Vol 19.

"At another time, under, for instance, some influence reaching along the nerve distributed to the gland, altho there may be no change in the quantity or quality of the blood passing thru the adjacent blood vessels, a rapid stream of material flows from the protoplasmic cell body into the canal: How is this secretion brot about?"

Physiology, P. 18, Britannica. Vol. 19.

"Thus, the characteristic constituent of pancreatic juice is a peculiar ferment body called 'trypsin' and we possess evidence that the granules in the pancreatic cells are not pepsin.. But we have also evidence that these granules consist of material which, upon a very slight change, becomes trypsin, of material which is an antecedent of trypsin, and which has accordingly been called 'trypsinogen.' Thus the cell, during the rest, stores up trypsinogen, and the change which characterizes activity is the conversion of trypsinogen into trypsin, and its consequent discharge from the cell. These are facts ascertained by observation and experiment; viz., that trypsin-

ogen appears in the protoplasm of the cell, and that in the act of secretion this trypsinogen is discharged from the cell in the form of the simpler trypsin. *When, however, we come to consider the origin of the trypsinogen we pass to matters of inference and to a certain extent of speculation."*

Dr. Brubaker, in *Quiz Compounds on Physiology*, P. 29, says: "Water is the most important of the inorganic constituents, as *it is indispensable to life*. It is present in all *tissues and fluids without exception*, varying from 99 per cent in the saliva to 80 per cent in the blood, 75 per cent in the muscles to 2 per cent in the enamel of teeth. The total quantity contained in a body weighing 165 pounds is 115 pounds.

Do you realize that 115 is to 165 almost two-thirds? You and I are two-thirds water, the balance is skeletal tissue or frame work minus the moisture. What is left of a body after cremation? What has cremation done? Removed the moisture. What is left is an urn or dust.

Even the brain is seven-eighths water. The matter of the superficial earth is two-thirds water, and the same proportion is met with in each living unit; thus the same ratio is a universal law when applied generally.

Reverting to water, how essential must be the study of that which is two-thirds of us? What does it do? Why and how does it enter, what changes does it go through, in what manner does it get to various tissues, how are they absorbed and carried out, are but a few of the questions which this knowledge conclusively answers.

Many quoted paragraphs could be slightly transformed to coincide with these thots. Questions without number are unanswered in these cited pages and it is to answer those that I shall bare the listener to the comparisons. Remarks in parenthesis are mine, included to make sense and proper thoughts.

On page 537, *Kirk's physiology*, 17th edition, we find: "The main function of the kidneys is to osmose urea thru its texture converting it to urine. The true secreting part of the kidney is the glandular epithelium that lines the convoluted portions of the tubules; there is, in addition to this, what is usually termed the *filtering apparatus*. Tho the process which occurs here is generally spoken of as the filtration, yet is no purely mechanical process, but the cells (Intelligence behind them) exercise a selective influence (function under the guidance of Innate) and prevent the albuminous constituents to escape.

"The term excretion is better than secretion as applied to the kidney, *for the constituents of the urine are not actually formed in the kidney* (as for instance the bile is formed in the liver), but they are formed elsewhere (*"Where"* this *"elsewhere"* is we are left to guess); the kidney is simply the place where they are picked out from (serous tissue) and eliminated from the body."

Page 541 says: "The epithelium of the convoluted tubules has a structure *which suggests from its resemblance to other forms of secreting epitheliums, that its function here also is secretion.*

"But the proof is not absolute, for the pigment is a foreign substance. *Urea is a very difficult substance to trace* in this way because it does not leave any colored trail behind it.

"*Other experiments, however, have been undertaken to prove the point for the case of urea.*"

Page 545 maintains that: "Extirpations of one kidney for various reasons is by no means an uncommon operation. It is not followed by any untoward result. *The remaining kidney enlarges and does the work previously shared between the two.*

"Extirpation of both kidneys is fatal; *the urea, etc., accumulates in the areolar tissues and the animal does in a condition of coma preceded by uræmia.*"

"Removal of one kidney, followed at a later period by removal of a half or two-thirds of the other, *leads in dogs, in which the operation has been performed by Bradford, to a surprising (to them, yes) result.* After the second operation the urine is increased in amount, the quantity of urea is much greater than normal. *It is thus evident that the kidneys play an important part in nitrogenous metabolism apart from merely excreting waste substances. The exact explanation is still to be found, but it is possible that the kidney, like the pancreas and liver and many ductless (?) glands forms an internal secretion.*" * * * Page 552 says: "The urea does not come, however, direct from the food; *the food must be first assimilated, and become part of the body, before it can break down to form urea.*

"The older authors considered that it (urea) was formed in the kidneys, just as they also erroneously (once and awhile they admit a mistake) that that carbonic acid gas was formed in the lungs. Provost and Dumas were the first to *show that after complete extirpation of the kidneys the formation of urea goes on, and that it accumulates in the blood and tissues. Similarly, in those cases of disease in which the kidneys cease to work, urea is still formed and accumulates.*

"*Where, then, is the seat of urea formation?* * * * Yet there can be no doubt that the *chief place* from which urea ultimately comes is the *muscular tissue. Some intermediate step occurs in the muscles; the final steps occurring elsewhere.*" He starts a question and leaves it worse, if such were possible. "Some—step" and "elsewhere" leaves the question bounded by empty space.

"Similarly other cellular organs, spleens, lymphatic glands, participate in the formation of urea; but the most important (is in all muscle) this (kidneys) is the organ where the final changes take place. The urea is then carried by the (serous tissues) to the kidneys, and is there excreted (as urine)."

It is easily seen that this standard author is in a quandry. Points simple to show with the exact knowledge of serious circula-

tion is such that could not be answered in any other manner, according to any correct physiological and anatomical basis.

In speaking of "*Secreting Glands*," *Kirk's Physiology* has the following: "These materials are of two kinds; viz., those (serum) which are employed *for the purpose of serving some ulterior* (definite) *office in the economy, and those* (urine) *which are discharged from the body as useless or injurious.*"

"The secretions, as a rule, consist of substances which do not pre-exist in the (proper) form in the (serous) membranes, but require special cells and a process of elaboration for their formation; e. g., the liver cells for the formation of bile, the mammary gland cells for the formation of milk. The excretions, on the other hand, commonly consist of substances which exist ready formed (after the organ has taken from serum what was needed). If from any cause (*why not* state what "*any cause*" is?) such as extensive disease in (the inability of the gland to get substances from which to secrete, as abnormal, in excess, or not enough of) the excretory organ, the separation (or excess) of an excretion, is prevented, and *an accumulation of it* (in the serous circulation) *ensues; then it frequently escapes thru these tissues and may be detected in various fluids of the body.* An instance of this is seen after the kidneys have been removed. Urea then, that would ordinarily go to the kidneys, *accumulates in the circulation. But this is never the case with secretions; for after the removal of the special organ by which each of them is manufactured, the secretion is no longer formed.*

"The circumstances of their formation, and their final destination are, however, the only particulars in which secretions and excretions can be distinguished; *for, in general, the structure of the parts engaged in eliminating excretions is as complex as that of the parts concerned in the formation of secretions.* And since the differences of the two processes of separation, corresponding with those in the several purposes and destinations of the fluids, *are not yet ascertained, it will be sufficient to speak in general terms of the process.*" The serous circulation has laid aside the "general terms" and is specific.

"Every secreting apparatus consists essentially of a layer of secreting cells arranged around a central cavity; they take from serum the necessary material and transform it into a secretion which they pour into the cavity."

We find a good substantiation of the cellular circulation, which is distinct and separate from any other, and the nearest to proving our contention of a circulation separate and apart from blood in *Kirk's Physiology*, 17th edition, p. 499, where he says:

"The bile capillaries commence between the hepatic cells, and are *bounded by a delicate membranous wall of their own. They are always bounded by hepatic cells on all sides, and are thus separated from the nearest blood capillary by at least the breadth of the one cell.*

"To demonstrate the intercellular network of bile-capillaries Chronszezewsky employed a method of natural injection.

"Pflüger and Rupffer have since shown that the relation between the hepatic cells and the bile-canaliculi is even more intimate, for they have demonstrated the existence, in the cells, of vacuoles communicating by minute intercellular channels with the adjoining bile-canaliculi. It is important to notice that the bile canaliculi are always separate by at least a portion of a cell from the nearest blood-capillaries, and that the formation of bile is no more transudation—(from serum to bile). The liver cells take certain materials from the *serum* and elaborate the constituents of the bile, bile salts and the bile pigments. *There can be no doubt that these substances are (converted) by the hepatic cells, for they are not found in the blood nor in any other organ or tissue; and after extirpation of the liver they do not accumulate in the blood.*

"Intercellular canaliculi in the liver cells are not unique. Recent research by Golgi's method has shown that in the salivary and gastric glands, and in the pancreas, there is a similar condition of affairs."

With respect to the significance of the connective tissues, we find the following in Moleschott:

"It is one of the noblest fruits of modern research, for the acquisition of which Virchow and Von Recklinghausen have cleared the way, that the connective tissue has advanced from the indifferent part first assigned to it into an unlooked-for fruitful activity. That which formerly seemed only intended to fill up or to form a protective covering, now appears to us as the matrix through which the secret currents pass from the blood to the tissues *and back* from these to the blood vessels, at the same time serving as one of the most important breeding places for young cells, which may then be raised from their undeveloped youthful form into the most special structures of the body."

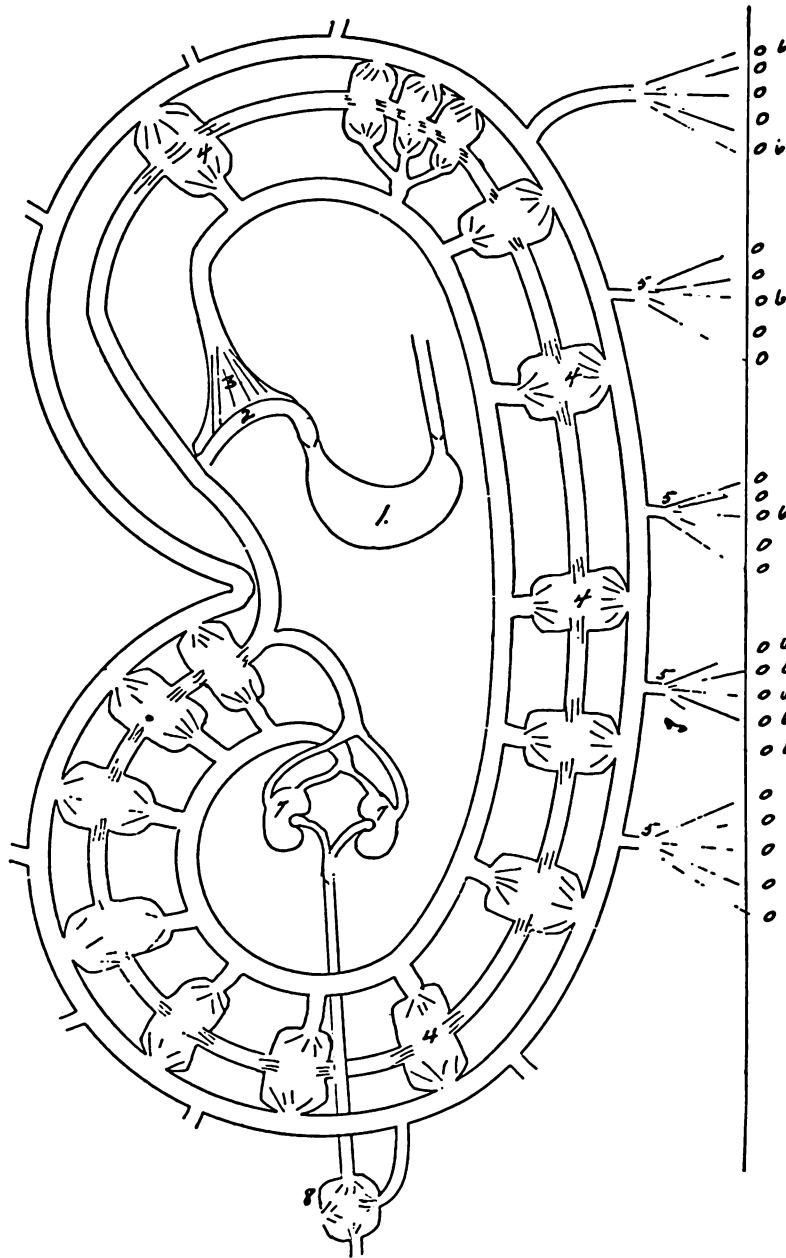
The principal secreting glands are the serous, synovial, and mucous, lymphatic, salivary, pancreas, mammary, liver, lachrymal, membranes, kidney thyroid supra-renal and testes the areolar membranes, etc. The skin and kidneys are the great emunctories.

The small intestine is the true distributor and converter of nutrients from the inside outward and it is at this point that water, mixed with the juices of solid foods, which have been digested, are converted into serum. It is known by the latter name after having seeped, by osmosis, through the walls of the small intestines into serous tissue.

Everything entering the mouth leaves, through the skin, kidneys, bowels or lungs. It enters into the care of your body and an action works it to the surface. Can you think of anything that does not work in that manner from the inside to the outside?

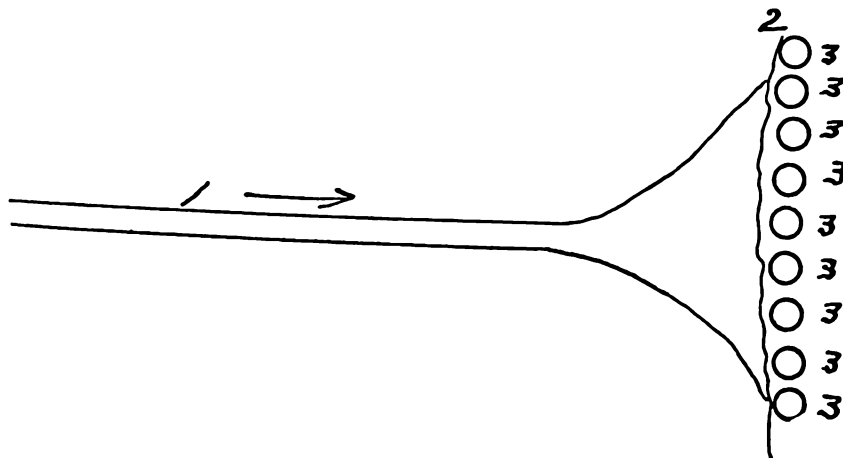
From the point of entrance into the serous circulation it starts on a tour from which many side trips, to all organs and tissues, are to be taken, all eventually reaching one final destination—the kidneys. "Capillary attraction has been offered as a means of giving the impetus, but such is an explanation that deciphers *nothing*.

There is a principle behind everything and to beg the question is to remain ignorant. The more Innate is studied, and how she performs, not alone one, but all functions, through *direct* action, under commands from Innate mentality; the less you will consent to accept the above, or twaddle with inconsistent offerings. The M. D.'s and D. O.'s have known of a capillary circulation, but such does not show the specific adaptation of Innate to circumstances, and when that cannot be demonstrated I must dismiss the subject. "Capillary attraction" is an excuse proffered similar to "Smypathetic Nervous System." Talk about that of which nothing is *known*.



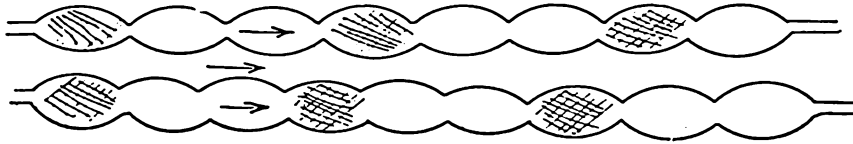
Schematic drawing showing systematic circulation of serum, *intercellular* and *intracellular* circulations of same material. Key-1, stomach; 2, intestines; 3, beginning of S. C. at intestines; 4, glands or other tissues; 5, outlets for superficial tissues; 6, urea or perspiration; 7, kidneys-ending of S. C. where all liquid refuses gather; 8, bladder.

Cut the dermis, if you will, and you will have a flow of blood for a period, then a flow of fluid which is not blood, except thru its liquid characteristics, which are the same in the Serous Circulation or in the blood. This liquor is either serum or the same in transitional changes, there being so many that man only recognizes the most prominent ones, but I am convinced that there are dozens of chemical changes going on in the body which are so minute that the eye does not see nor the mind even conceive them.



Schematic drawing to illustrate osmosis of serum through epidermis. 1, afferent flow ; 2, skin ; 3, perspiration.

Close observation and study reveals that all mucous membranes and connective tissues have a subdivisional layer—*muscularis mucosæ*—having muscular fibres in its construction. Its function is to contract—propel serum and its onward march. Glands have muscular fibres which expand and contract to permit a sucking or gasping inward movement; the kidneys portray this action very nicely. It is not necessary that each inch be composed of solid muscle to get free action. It is direct muscular contractions, all along this path, which give specific movement, all of which, combined, makes a definite, direct and specific set of movements thruout the serous body.



Schematic drawing to illustrate the means of propulsion to serum in the serous circulation. Propulsion to serous circulation, be it in inter or intra cellular, is gained by the vermicular motion or contractions of the muscularis mucosæ that line all canals of cells, external and internal. Internal cellular contractions decrease the intercellular spaces, the external cellular contractions decrease the intracellular spaces, hence, each act upon the other in a simultaneous manner, thus osmose forward the fluids in each.

Investigate the structure of the kidneys which complete the circuit of the serous circulation. They are, as it were, two sponges which contract and expand. By this principle they draw urea *after* it has passed thru the succeeding stages, from serum to urea. The exterior surface of the kidney is covered by a very closely woven fibrous capsule of investing serous membrane. Anatomies and physiologies refer to the investing serous membranes of this as well as *all* glands, but as a peculiar oversight (?) never tell *why*. This most important physiological question we are left to guess *and* answer. There is a reason. What is it? The kidney has two circulations similar to the portal and arterial of the liver. 1st, the passage of serum, which feeds and moistens the structure of the gland proper. 2nd, the sapping of the urea and conversion of that to urine.

The acceptance of urea takes place thru a sheath which is the end of the channels by which this circulation is carried. It moves thru that and glides into the structure of the kidney, thence into tubuli uriniferi which reach from the cortex, and, with hundreds of others, empties into the ducts of Bellini, the culmination of which is the belly of the kidney into which urine gathers.

Previous to going to the kidneys, a small portion of the urea goes thru the supra-renal capsules, where some of the chemical constituents, necessary to maintain digestion, are extracted from it and carried to the retaining organ. Very little and poor would be digestion if not acted upon by this fluid. It is an absolute necessity. Bile contains the chemicals for action upon fatty, solid foods to reduce them to chyle. To the supra-renal capsule is given the function of extracting certain chemical substances from urea, thus conferring upon the organ the function of making specific necessities for maintaining muscular tonicity. Thru the kindness of A. A. Erz, D. C., I am able to use the name—reninogen—coined for this purpose.

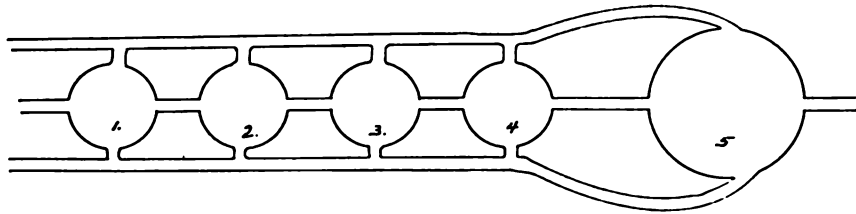
The structure of the capsule glands, inside and out, is composed of serous tissue. For proof, we quote from *Kirk's Physiology*, 17th edition, p. 333, which reads: "Structure—The gland is surrounded by an outer sheath of connective tissue (connective tissue is always serous in function), which sends in fine prolongations forming the frame work of the gland."

The specific function of these organs has never been solved up to this date. The following from the same book, p. 334, speaks of the results, effects, symptoms, that follow a diseased condition. This is the nearest medical authority to reaching Chiropractic principles. The following quotations, in connection with the original statements, will clear the question of function involved.

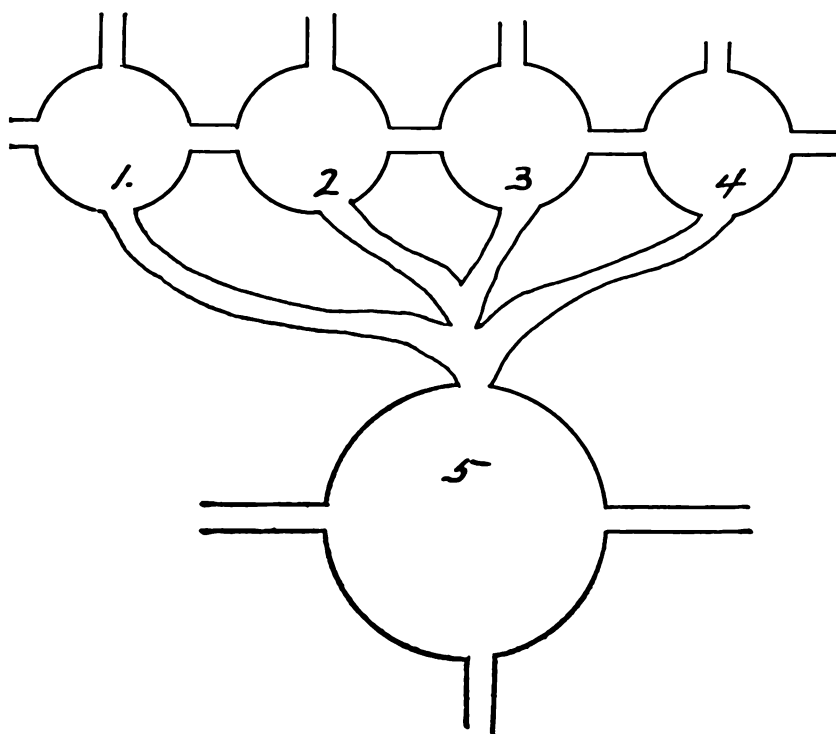
As an intercommunicating telephone system is equivalent to one party talking from any one phone to any other phone on that system, so is every other phone in connection with that one; thus it becomes ideally an intercommunicating system, in fact, as well as name. For instance, we have a twenty phone intercommunicating system as we have at *The P. S. C.* One person can step to any phone and talk to any phone. Yet, after all, every connection and line is a direct transmission from a battery to the end or place to which talk is being transmitted. It could not be otherwise and be a direct conveyor of those vibrations which are called words. The same is true of the glandular system or ductless and known duct glands of the human body. Each gland is in direct constant contact or communication with all other glands. What I mean is that the liver secretes a substance, which when excreted, is sent to all other glands in the body. The spleen makes a food for every gland in the body, regardless of whether considered ductless or not. This is true of every gland, regardless of size or location. It must be admitted that some glands secrete and excrete a larger amount of materials than others, hence appear to play a more important part in the body's metabolism; yet, the fact remains, that according to location and size, each is important. To remove any one or more glands is to deprive the entire body of just that much and that particular kind of secretion. To have one gland secrete and excrete an excessive amount of that material is to show an excess of that fluid in every gland in the body. A typical illustration of this is jaundice, uræmia, etc.

For hypothetical example: If there are 20 glands in the body each gland would get 20 juices, the kind it makes would be locally distributed and each other kind would be received from foreign places, hence perfect metabolism would be equal deposit of each according to the necessity at the time of deposition. There is no question but what there is a deposit of more of one than another, hence all work to the end of acting and counteracting, alkalies and acids, to the end of reaching a standard chemical state. To deprive one gland of one secretion or to give one gland, either locally or foreign, an excess of any one secretion would be to interrupt the normal status of the chemical coördination of that gland; hence, a disease, named according to how carefully the physician can ob-

serve the same. Inasmuch as every gland is deeply embedded and no man can see the workings of these glands, where he cannot decipher minutely enough, one secretion from another, it appears to me that any exact standard has always been a guess work and always will be. No man's eye has seen, no man's fingers have delicately felt and I am sure no man's mind can figure on what it cannot see or feel, from a therapeutical standpoint; therefore to argue the secretory and excretory possibilities is fal-de-rol, therefore, useless and a waste of time.



Schematic drawing to illustrate how a fluid, having gone thru another gland, would then pass its refuse on to and enter another gland. This is true in either inter or intra cellular types of materials. The excrescences from other glands, going to another, present to it those chemicals necessary to make its internal secretion, as in bile.



Schematic drawing to illustrate the same as drawing on page 290. Nos. 1, 2, 3 and 4 represent glands. No. 5 the liver being the specific gland mentioned in the former reference.

In the intercommunicating telephone system, when we desire to talk to another man, we can do so by making direct connection with him by pressing one button and directing the direction of the currents. In man the 20 currents are always in contact, running from one gland to another. Every gland has 20 currents running to it which are never interrupted in their paths nor is the constant steady flow of materials interrupted unless a subluxation occurs. This, instead of making or connecting a current, does the reverse; it breaks the current, it interferes with the transmission of currents; hence, causes a cessation of the flow of juices made in some other gland. Therefore it happens that one gland may be deprived of one juice and it may get all the rest. The combinations that may be distorted are endless, but, be that as it may, the local subluxation is what will determine the local or general abnormality that may start from that place or end in that gland. For instance, we get a subluxation at Li. P.; this would possibly cause the liver to secrete too much bile, hence a general deposition of bile all over the body. We might have a K. P. subluxation, causing a lack of withdrawing from the body the necessary liquids; hence dropsy

would be the result. The opposites of these two conditions could occur at the same general places. Other pressures might occur also which would affect the local receiving of one or more liquids from other glands, hence only one effect may be noted to be abnormal. Thus the abnormalities that may be added up, with 20 secretions in 20 glands could be heaped until the mind would become bewildered. To decipher these combinations is the end of medicine, to decide the location of the local subluxation, making more or less of a general or local condition, is the work of the Chiropractor. Which do you wish?

"Function—The immense importance of the supra-renal capsule was first indicated by Addison, who, in 1855 pointed out the disease now known by his name. It is associated with pathological alterations of these organs. This was first tested by Brown-Sequard, who found a few years later that removal of the supra-renals in animals is invariably fatal. The symptoms are practically the same (altho more acute) as those of Addison's disease, namely, great muscular weakness, loss of vascular tone, and nervous prostration."

"The capsules, therefore, form something which is distributed to the muscles and is essential for their normal tone; when they are removed or diseased the poisonous effects are the results of the absence of this internal secretion."

The "immense importance" has been shown in that removal of them meant death, but the connection between that and the reasons "how" and "why" are markedly absent. It is these gaps that this lecture aims to fill.

Extripation of the thyroid brings on a similar condition differently located. Does not removal of the appendix in 99 per cent bring on costive fecal matter? Does not removal of the spleen manifest imperfect digestion? Does not damming back of bile interfere with chemical assimilation? Removal of the thyroid eventually means a hurried death.

Kirk says the capsules "therefore form something which is distributed to the muscles and is essential for their normal tone; when they are removed or diseased, the poisonous effects are the results of the absence of this *internal secretion*," which is unknown (to them), as to how it gets there, where it comes from, what it is, or a name for it. He did not know *how* death was induced; the principle has been left for other minds to discover. Because of the impairment of nutrition we demonstrate that water conveys *the* (and all of "*the*") essential foods. To advance the idea that water is a portion of the nutritious foods means that it must be digested and then distributed to tissue.

"All solid food is in liquid form. The first advocacy of this idea in *The Science of Chiropractic*, Vol. 1, brought many comments upon the previous sentence. It is a solid food in the liquid form, differentiating it from water as a liquid food. All foods are reduced to a fluid. Serous circulation conveys nutritive qualities of solid *and* liquid to all parts of the body. What does blood do? It

conveys oxygen to make combustion possible to tissue. The more I investigate this question the less value is placed in blood. It is like a thief that has been stealing the honors of others. True nutrition and serum will be found in blood, the same as in any other tissue thruout the body, but that is not evidence sufficient to prove that because food is there, it *is the* transmittor. To support in addition, that blood circulates serum would be giving two functions to *one* organ, *which is never the case in the body*. To assign that which performs the function of circulating foods we must look farther than blood. The purpose, intents, and uses are well supplied in serous circulation.

After serum has been utilized, it is carried to the excretory organs; namely, skin and kidneys. The two latter are to serous circulation what the bowels are to solid foods—the gatherers of waste.

Each body has an independent system upon which its physical economy is run. It needs certain chemicals in proper proportions, and if one is entirely lacking it will be Innate's aim to convert what *is* given into the opposite to maintain its chemical equilibrium.

The practice of medicine, where *man* is *trying* to tell how much or little of this or the other chemical is needed in the body, and is attempting to generate and supply it himself, is but the practice of guessing; for no person, exterior to, can see, observe or accurately *know* what *is* needed upon the inside. Its proportions are secrets and dense subjects—incomprehensible to the physicians who are endeavoring to be honest, but are trying to surmise, fancy or stretch the imagination. Meanwhile the patient does and will continue to suffer, all for the lack of knowledge of *the cause* of the incoördinate chemicals. The physician—personally—is honest, but his science (?) makes him dishonest.

This idea will be illustrated by any case of indigestion, in which is lacking a certain percentage of splenic fluid (gastric juice) to keep up assimilation. How is man to tell how much or little of its constituents is in excess or lack of, and is necessary to return it to equal dimensions? Where is the man, student or professor, or group of them, that will take any case they may so choose, place these deductions in writing and convince any jury of common men that they can accurately tell? He can conjecture, experiment, suppose, and in a measure, try to give to the stomach what it lacks, but does it stay there? If it is minus today, will not the same cause produce equal conditions tomorrow, one week, months, or ten years from now? What he induces to be taken today will have left the body in 36 hours, the temporary relief is not permanent. *Now*, what does he do? Tries the same again and again, experimenting with various compounds, *until* the patient quits in disgust or dies to get relief.

One case recently gave me much to think about. I tried to apply serous circulation ideas, but, upon first consideration, its principles could not be applied. I left the patient, preferring to study the cause and its symptoms, until a later day when something tangible was forthcoming. Later the patient was consulted and

the following conclusions reached. Semen is a glandular juice and is converted serum. That which expels or carries the spermatozoon from the male body is the produce of prostate gland and testicles which convert serum to semen. According to Vanquiel it is 900 parts of water, 50 animal mucilage, 10 of soda, and 30 of calcereous phosphates. Again you are face to face with a preponderating quantity of this fluid. Entering the affairs of that person's life I found that intercourse was no infrequent occurrence. The serum which should have been carried thruout the system to keep all parts moist *was being sapped to these glands and spent excessively*; these glands dried the body. The individual found that after every cohabitation this dry, scaly condition was present. Cessation of excess corrected the effects.

In celibates and those living a life of continency, semen is secreted but not in the same quantities that is ordinarily demanded when this function is utilized as originally planned—in moderation. In other individuals sufficiency is made for the external use, spent thru intercourse, and also enough for internal purposes. In one it is used at one time, then that amount is replenished and the balance of the total secretion is utilized for functional necessities. These glands, like all others, are constantly creating a secretion. Observation and discrimination, under morphological and pathological conditions, especially the sexual ones, have proven that seminal secretions which are not utilized for procreative purposes, are retained, as food, in the body. Its destination is to the brains and its transmission is thru definite paths of this Serous Circulation.

The solid constituents (18 per cent) of semen remain where they were carried preparatory to expulsion; the liquid consistency (82 per cent) is transported to the above named place; therefore the Innate involuntary adaptative emission which occurs regularly with celibates.

When intercourse is excessive the liquid is spent in excessive quantities, taking not only its share but also that which should go to the brain, hence the latter organ is proportionally dry, as it were—it has lost a larger or smaller proportion of its food properties. The same is true with masturbators—the liquid is spent, hence drawing from the brain the same as in excessive intercourse. In that form of masturbation, where fluids are not spent, we will find that the constant excessive heat that is prevalent during erection, burns its nutritive properties. In this latter condition the fluid gets to the brain but its quality has been much reduced. What results can be expected of a brain that is so poorly fed or nourished? We can account, upon this basis, for many types of sexual insanity that follow excessive intercourse or masturbation, or subluxations interfering with these functions. It is not the intention to elaborate this idea into a lecture on these diseases, but even behind all social conditions of the excessive intercourse or masturbation will still be found the individual cause which produces every symptom which induces the local irritation or constant state of erection. We can, in addition, get the many forms of insanity where we have

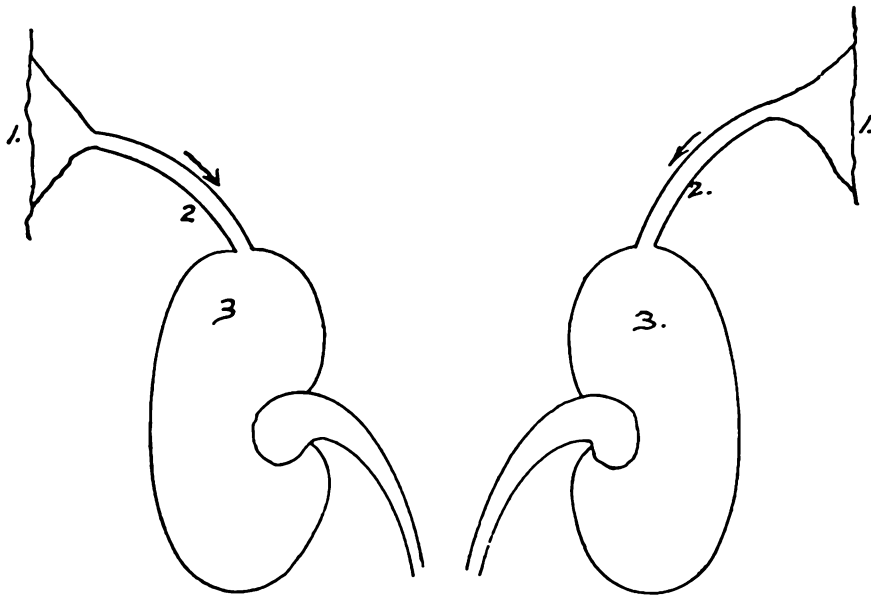
the Atlas subluxations interfering with the direct functions of the brain that calls for lascivious thots and practices, but without a local P. P. cause it could not be a habit or a sexual insanity. It can be readily seen that the combinations that exist between the possibilities of the two are almost endless.

As the serum approaches the seminal glands, it is in the form of a material capable of secretion. After leaving these glands it is an excretion to them but a secretion to the brain; i. e., a food material. The semen is undoubtedly one of the most finely developed secretions of the body and thus is able to manufacture the highest type of product—mental impulses—thoughts.

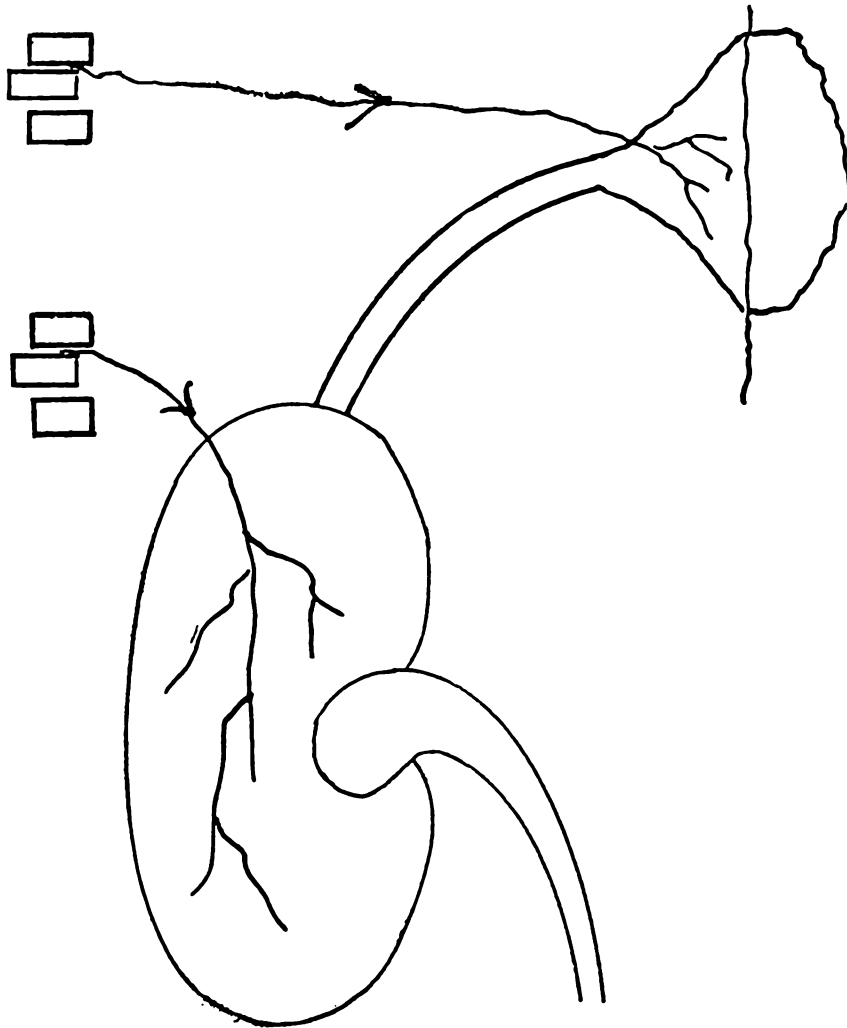
Suppose we close the pores of the skin of the body for one day by a coat of tar. Death is the supposed result, altho this subject is a mooted one and open for discussion. Removal of both kidneys is equivalent to death. Extirpation of one kidney finds the adaptation of the other to do its mate's work. How could that kidney do twice its work if it did not have connection with its opposite? In extirpation of both kidneys the individual dies because there is an accumulation of urea in the body. Cases are on record where *urine*, not urea, was perspired. Other cases, where urea becomes dammed back into that portion of the serous circulation which should carry it forward, have dropsy. *Serodema is the accumulation of serum* in those portions of serous circulation which would distribute *normally* this *product to all tissues*. *These new ideas, one by one, are* productive of the implantation of independent cultivation and show that serous tissues or membranes have successive stages of a definite circulation which sustains the idea of specific channels; and all can exist *when blood has been, is and continues to be normal in its work*. The functions of serous circulation may be away off and the other normal.

In all open sores the flow of pus is but a flow of serum putrefied. All of this may continue for years without one drop of blood, showing the continuous flow of liquid in the body, apart and separate from that of blood. This flow might be quite prominent and of great quantity. It is not unusual to have a flow of serum or urea after abrasions of the skin have been made. The sweat is one of the best evidences of a dermameric circulation that is separate and apart from that of blood.

There are two classes of cases where there is an excessive deposit of liquid; one is serodema and the other we might call ureadema, in so far as one is an accumulation of serum and the other of urea. The latter condition is defined as Dropsy; the other condition has not been defined, except as Dr. Erz saw fit to term it "Serodema." The symptoms following each condition are different: the general appearance and actions are different; external appearance of the skin is different.



Schematic drawing to illustrate the relation between skin and kidneys are minus in function, skin is plus in fluids. 1, skin; 2, kidneys. If kidneys are plus in action, skin is minus in fluids; if efferent uræic flow; 3, kidneys.



Schematic drawing to illustrate local epidermic weakness and lack of function of kidneys, induced by two subluxations in the spine. One going direct to local area involved, the other involving the function of the kidney direct.

For instance, I have seen serodema of the left arm and dropsy of the right. Such cases puzzles physicians—they have no explanation to offer because they do not know the basis upon which such a condition rests.

Hitherto a disease of the supra-renal capsules has been a dangerous and surely fatal one, sooner or later, because no cure was known. Physicians make urinalysis a specialty. When finished they are aware how much of this or that chemical is lacking out of a possible one hundredth excreted parts; but the cause of the combina-

tions that existed to produce such is unknown. Even *if* they could be deciphered it would be impossible for *man* to give to the body what it needed, and *if* possible for the physician to give these organs superficially made juices, they would nor could not conform to the rightful proportions, for Innate is a chemist who stands unequaled. She holds the unique position of being able to create that which man cannot duplicate, internally or externally.

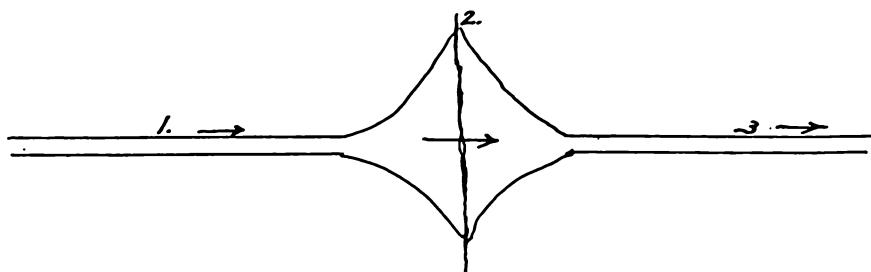
The function of the kidney is like that of the sponge, to suck or sap inward. This necessitates, normally, a constant vermicular motion and keeps Innate adapting herself to circumstances. If the left kidney be diseased (not at ease) *she* will accommodate herself with the opposite. If the individual be 80 years of age, it is this Innate who adjusts actions to the changes. Suppose another party be a youth, the actions are differently expressed than was observed in the former.

The excretion is again a matter of adaptation which must correspond, if all is normal, to the quantity taken internally, minus the substances utilized as food. When the kidney's belly is full Innate conforms motions to the circumstances—contracts and expells the urine into the ureter (the size of a goose quill), emptying it into the urinal reservoir, the bladder; and this, in structure, is so arranged that it has small valves, and when full Innate realizes the fact, opens valves, and urine passes from the body.

In this connection we must note this one factor; that even blood does not reach the foetus direct, but its function is purely thru osmosis. Even the "blood" does not flow direct between mother and foetus.

"Placenta—In most mammals the placenta is principally developed from the allantois, and the chorion and tufts of vascular villi on its surface penetrate the blood vessels of the prenatal uterus, and thus establish a *nutritive and excretory connection between the blood of the foetus and that of the parent, tho the blood itself does not flow from one to the other.*" Webster

Note the connection is not direct, but thru osmosis. This item is worth remembering in the study of embryology and serous circulation and the relative values of one to the other.



Schematic drawing to illustrate osmosis through tissue. 1, afferent serous flow; 2, skin; 3, efferent urea flow.

Did you ever think what would become of you if the two-thirds of water were thoroly removed? What thots would run rampant if you knew that no birth could take place if the fœtus did not float in water? The first object after conception is to float the new fused substance in water, and in this manner it remains until birth, when the large sac bursts, permitting free and easy delivery. The very existence of water at this time is a fine example of the supreme use of that which allows expansion. Fluids are the only substances which permit such action. This new being can be compared to a seed planted in the ground. Take away moisture and what have you? *Blood is not in the seed or ground but moisture must be* to permit *expansion* of its germinal kernel cells to have the future growth. How great, then, must be the concentrated study of that which is the early life giver? You are aware that shortly after conception the cervix uteri is plugged with mucus, which dams the entrance from external objects and serves as a retainer to the internal liquids, using the same good judgment that a farmer would in retaining water in tanks or a lake to spread over his fields, etc.

The great pliability of muscles and joints, the softness of skin or ability to move, and the act of raising bones are due to the transformation of water, with its component foods, into various secretions. We could not give or take, contract or expand, if it were not for this physical function. If for no other reason, the fact that two-thirds of the body is composed of serum makes the serous circulation an important study.

In enumerating the functions of serum, I give it four; 1st, to moisten every tissue with a secretion to obviate friction; 2nd, to deposit its proportion of chemical constituents, necessary to produce material for combustion. The mere matter of deposition is not calorification nor will it be until the spark (mental impulse) is received, which explodes the gases; 3d, to cause germinal cells to expand, thus giving vent to Innate's forces, which means the maintaining a normal as given at birth until there be no more germs to expand, then death ensues; 4th, the nurturing of all tissues in the body, as serum represents the nutrition of all foods in soluble form.

If we did not have water, the sponge, bean nor corn *could not expand*. Were there not moisture the rose bush would never bloom, nor could the apple tree give fruit, nor the pear tree its products. *It is water alone*, then, that causes expansion and fills intercellular tissues with the substance which causes it to retain its condition until maturity is reached. Between all cells are fine intercellular passages, bridged across by fine protoplasmic processes, which pass from cell to cell; the channels between the cells serve for the passage of serum and urea according to direction. For serum to become an integral part of the cell by nutritious and combustional means, it must pass thru transforming tissue, which takes from serum its useful products, throwing the unused portion (urea) forward into continuous circulation.

Everything that lives has one basis for its existence—expansion, superinduced by water. For those animals that have anima-

tion there exists, in addition to the above fundamental principle, blood circulation, to convey oxygen for heat producing purposes. Trees, plants and vegetables *live without* a blood circulation because internal heat is not a requisite to their existence, but moisture is. Plants live from external heat, and when they get below their normal they cease to expand and become dormant. There being an absence of heat in winter, the plant ceases to show its beauty and retires to sleep. All animals, 2 or 4 legged have and need internal heat, therefore a blood circulation. Plants, *vegetables, etc., receive and utilize nutriment substances minus the blood circulation. What tissues convey it then?*

It is impossible to credit the blood as the conveyor to a plant, for it has none, nor nothing similar. The tree has "sap" which has definite osmosing channels, thus going to the most minute parts, but it does not have channels like arteries or veins. Sap is to the plant what serum is to man.

The *foundation principle of man and plant is equal*. Such men as Darwin uphold this principle. Step by step the same principle should be followed until the lower elevation of man is reached. His *life* is due to the same "sap" conveyors which reach every cell.

MAY SOLVE LIFE SECRET—DR. BABCOCK NEARING SUCCESS IN RESEARCH WORK.

UNIVERSITY OF WISCONSIN PROFESSOR STRIVING TO REVEAL RELATION OF PLANT AND ANIMAL EXISTENCE

Madison, Wis., Feb. 28.—Research into the secret of life, which has been carried on by Dr. S. M. Babcock, of the University of Wisconsin, inventor of the world-famous milk-test bearing his name, is approaching *remarkable* discoveries, according to an agricultural college bulletin.

Doctor Babcock's study, according to Dean H. L. Russell, of the agricultural department, is directed to the explanation that all living organisms *contain water abundantly in the tissues*, some of which is taken directly, some is absorbed in the solid food, and some termed "metabolic" water to distinguish it from the water supplied from other sources, *is formed within the organism* as the result of the respiration process, due to the oxidization of the organic matter of the food in the tissues of plants and animals. In explaining Doctor Babcock's studies, Dean Russell says:

"He has discovered important relations existing between the presence of such *water in plant and animal tissues* and the respiratory process of living cells. *The formation of the internal water changes the cell contents, disturbing the equilibrium of the cell, and causing a movement of food materials toward the cells.* This process continues so long as proper nutriments are available to supply the waste caused by respiration.

"It has been shown that the action of this 'metabolic' water plays an important part in the germination of seeds. It is also the chief source of succulence of ripened fruits. It seems quite

unreasonable to urge the patient to force more air into the tubes. Today we see such is an exploded theory, and never was scientific-probable, also, that the increase in water content and the development of sap pressure during the resting period of deciduous trees, as well as the early growth of buds in the spring, is due in large measure to this cause."

These researches open up an interesting but comparatively *new* aspect of physiological processes of great importance in both animal and plant life.

—*News clipping—Milwaukee Sentinel, February 28, 1912.*

Upon this basis I am convinced that past investigations, in which blood has figured as the attractive sphere for possessing and carrying the nutritive qualities, is all wrong.

Rev. Weed says (he is an investigator into the lives of plants): "The headquarters of a plant or tree is in the *crown*, that part which is between the root and body, and the vital currents run both up and down from that part. I carelessly neglected to take the label off of a young peach tree. It was tied on by a wire around the body of the young tree. The next summer I noticed that the leaves above the pinching wire were only half as large as those below it, and 'Innate' had built rings of bark above and below the wire in an attempt to get fuller communication outside the obstruction. The '*currents of power*' were not wholly, but partially 'shut off' by the squeezing wire."

Serous Circulation is the nutriment conveyor; arterial and venous blood transmit oxygen and carbon dioxide respectively. It is true, in these are to be found some of each of the first named, for no one tissue lives entirely and independently of the action of the other, yet each has its receptive centers.

"Blood is life," is and has been the teaching of Dr. A. T. Still and other medical men. According to these authorities, trees, plants, and all vegetables, altho *growing*, are dead, not alive; because they are devoid of blood. "It cannot live unless blood is present." A man may be full of blood and be dead. Vegetables have no circulatory channels equivalent to what is in man—the blood circulation. It has a "heart" in so much as it is a "core."

The "*sap*" of each tree has a definite starting and ending point. This sap or serum is present in every living thing whether vegetable or animal, and has a definite circulation.

Man has the express difference of creating his own heat from the inside, whereas all vegetation depends upon the sun or hot houses for its heat. This additional function in man is met by adapting to him the *blood which other creations have not*. Thus we reach a fundamental law that is universal.

I am aware that this is a new thot, one which awaits ridicule by all professions, but those students who absorb it give me encouragement to speak what I think. At first reading it may appear ridiculous, but studying (not reading) will open the cloud of superstition, for; if the shell be broken, these paragraphs will be found full of meat.

Continuing the subject of comparison between "sap" I shall quote a few definitions and paragraphs from authorities which assists in substantiating the differences. The past supposition has been that blood of man and sap of vegetation were equivalent. The only authority to agree to that is one M. D., the balance create a distinction. It is my wish to have this lecture studied until the distinction between blood and serum is known. "Sap. The circulating fluid of plants, corresponding to the blood of animals"—because a serous circulation was unknown. *Dunghlison*.

"Sap—*The juice of plants of any kind, especially the ascending and descending juices of circulating fluids essential to nutrition.*" *Webster*.

"Sap—*The nutritive fluid which circulates by endosmosis in plants.*" *Illustrated Dictionary of Medicine. Gould*.

"Sap—*The watery juice contained in living plants. It is derived from the soil, and enters the plant in a state of solution. As crude sap ascending to the leaves, it is transformed into elaborated sap. Descending again, this time thru the bark, and more or less circuitously, it forms the cambium whence young wood is formed. The sap ascends with great rapidity in a zigzag course, sending off lateral currents to the leaves. The most copious ascent is in the spring; in winter the operation intermits. The sap increases in density as it rises.*" *New Revised Encyclopædia Dictionary*.

"*Ecology*—Holophytes: the word signifies 'the whole plant' and refers to those plants whose mode of life is entirely of the ordinary kind, which includes all green plants, *which construct their substance from absorbed water, soluble nitrogen salts, and other salts; that is, from wholly inorganic materials.* The province of ecology is to consider the various adaptations of the plant as a whole to obtain such food materials." *Encyclopædia Britannica*. Vol. XXVI.

"*Assimilation in Plants*—The term assimilation, as used in plants, is capable of various limitations. In general, the term has been applied to the changes which take place in food-material from its absorption to the formation of protoplasm; that is, the work of anabolism, so far as it pertains to food." *Encyclopædia Britannica*. Vol. XXV.

Under the title of "*Physiology of Vegetables*," we find the following:

"*Absorption of Water and Substances in Solution*—*The bodies of plants, unlike those of the great majority of animals, do not contain any internal cavity into which the food may be taken as a preliminary to its being absorbed by the tissues. The materials of the food of plants are therefore taken up directly from without into the cells of the absorbent organs. The cells which are especially concerned in absorption are, in the higher and subærial plants, the root hairs—thin walled, unicellular unbranched filaments which are developed from the epidermal cells some way behind the growing point of the root; in the lower plants, and even in those of the higher plants which lie submerged, all the cells of the plant may*

take part in absorption. Since *the food is directly absorbed* by the cells, and since the cells all possess a cell-wall, *the materials of the food must be taken up in solution*. Salts and other substances are, as a matter of fact, taken up by the absorbent cells in the form of *watery solutions*. *Substances which are soluble in water are dissolved in the water which is present in a greater or smaller proportion in all soils, and of those which are not soluble in water, many are brought into solution by the acid sap which saturates the walls of the root-hairs*. The actual process of absorption is an instance of diffusion thru a membrane; that is, of osmosis.

"Further *only such substances can be absorbed* by the root hair *as are present in larger proportion in the water to be absorbed* than they are in the cell-sap of the root-hair; this inequality between the proportion of any substance in solution in the liquid on the one side and in that of a membrane on the other, is a necessary condition of osmosis.

"It is obviously necessary, in multicellular plants in which certain cells only are in a position to absorb food materials from without, that these food-materials should be conveyed from the absorbent cells to the remainder of the plant. *In no plant is there any organ comparable to the heart of animals, by means of which a distribution thruout the tissues of absorbed food materials is (supposed to be) effected*. The distribution (in plants) is *accomplished by purely physical means, principally osmosis*.

"Stating the foregoing facts in the most general terms, it appears that in plants *the food-materials travel by osmosis from the absorbent organs to the organs in which the processes of constructive metabolism are carried on*—in one of the higher plants, for instance, from the roots to the leaves—and that the distribution of the food-material is assisted and accelerated by root-pressure and by transpiration (perspiration), the fullest expression of this being the transpiration-current in terrestrial vascular plants. And just as there is a current of food materials tending towards the organs in which the processes of constructive metabolism are carried on, *so also there is a current of the organic nutrient substances formed in these organs, traveling from them to the other parts of the plant*.

These vessels consist of elongated cells placed end to end, the *septa between the adjacent cells being perforated so as to admit of a direct continuity between their protoplasmic contents*." *Encyclopædia Britannica*. Vol. XIX.

The above quotations prove that plants live *without blood* or any similar process. If these can expand and become the images of life expressed in innumerable beautiful forms *why could not man, upon a higher plane, use the same fundamental principle for his expansion?*" The "asp" of plants is equivalent to serous circulation of man, and answers the same purpose.

In furthering the defense of this argument I submit the following from Dr. Carpenter's *Principles of Human Physiology*: "*Distinction between Animals and Plants*. However difficult it may

be for us, owing to our imperfect knowledge, to draw the line in individual cases, it cannot be doubted that a boundary does exist; and in general *a very simple mark* will suffice to establish the distinction. *This mark is the absence or presence of a stomach or internal cavity for the reception of food.* The possession of a stomach cannot be regarded, however, as in itself, an essential distinction between the two kingdoms; for its presence is merely a *result*, so to speak, of the nature of the food of animals, and of the mode in which it is obtained. Vegetables are dependent for their support upon those materials only which they obtain from the surrounding elements, carbon dioxide, water, and ammonia, duly supplied to them, with a small quantity of certain mineral ingredients, afford all the conditions they require, for the production of the most massive fabrics, and the greatest variety of secretions.

"They (animals) cannot incorporate any alimentary substance into their own tissues until it has been reduced to the fluid form; hence, they need the means of effecting this reduction, which was supplied by the stomach. Again, they cannot be always in immediate relation with their food; they have to go in search of it and need a store room in which it may be deposited during the intervals; this purpose also is supplied with the stomach."

The *absorption* process is carried more thoroly by the following chapter which is in accordance with the views of serous circulation. He says: "A distinction might be probably erected between the animal and vegetable kingdoms upon the mode in which the first development of the germ takes place.

"The seed of the plant, at the time of fertilization, principally consists of a store of nourishment prepared by the parents for the supply of the germ, which is introduced into the midst of it. The same may be said of the egg of the animal. In both instances the first development of the germ is into a membraneous expansion, which absorbs the alimentary materials with which it is in contact; and it prepares these by assimilation, for the nourishment of the embryonic structure, the most important parts of which—in the higher class of animals and phanerogamic plants the only permanent ones—are in its center. In plants, this membraneous expansion absorbs, by its outer surface, which is applied to the albumen of the seed, and takes it more or less completely into its own substance. In animals, this expansion is developed in such a manner that it surrounds the albumen, enclosing it in a sac, the inner surface only of which is concerned in absorption. This sac is, then, the temporary stomach of embryonic structure; it becomes the permanent stomach of the radiata; but in the higher classes only a portion of it is retained in the fabric of the adult, the remainder being cast off as soon as it has performed its function. Thus, then, the first observation of animal development is towards the formation of a stomach, for the internal reception and digestion of food; whilst the first processes of vegetable evolution tend to the production of a frond-like membrane, which, like the permanent frond of the

lower classes of plants, absorbs nourishment *by its expanded surface only.*"

In speaking of "*Serous Membranes*," Dunglison says, on page 202: "The serous membranes are transparent, thin, and composed of one lamina. *One surface adheres to the other textures*, the other is smooth, polished, and moistened by a serous fluid. They are arranged, in the form of sacs *without apertures, as great intermediate reservoirs for the exhalant and absorbent systems*, in which the *serous fluid* tarries before it enters the other."

While this paragraph is in a measure in accordance with circulation, he has failed to give us head or tail, start or finish to "The serous membranes" and "serous fluids" that he refers to. *Dunglison* has failed to speak of the function of serum, where it is formed, where it goes to after being utilized as serum, or what transitional changes it goes thru from serum until it leaves the body. *Dunglison* does not state function, nor give any comprehensive explanation or anything about its work, if it has any.

Instead of being "sacks" or "great intermediate reservoirs," it is composed of reticulum-like structures actually transmitting serum by seeping or osmosis. Instead of holding, reservoir fashion, it is continually on the move. The only receptaculi in the body are rectum, bladder, and gall bladder, and then only for the collection of materials until amount is sufficient for evacuation.

We have studied the many authorities in *The P. S. C.* library and not one is found who gives any cleaner knowledge of this most important subject than *Dunglison*. Chiropractic philosophical investigation has advanced new fields of physiological truths.

For instance, you boys noticed the Sherlock Holmes manner in which were located the symptom which led to the ultimate name of a disease which had baffled medical experts in Chicago, New York, and other clinics. *The* cause was forthcoming as soon as its specific character was known. If you will apply in every case the same little wedge of evidence, as given, you can and must always conclude such diseases to be abnormalities of the serous circulation. All diseases, including those of S. C., are merely action in too much or not enough, which is the abnormal expression of function. If a happy medium is reached, then we have health.

The ordinary M. D. when he graduates from college with his head crammed full of knowledge has a thousand remedies to be tried for each disease. Every nostrum is a "positive cure." He knows it all, nothing can be learned. It is this type that fights for the country physician's office; wants to be in on this, that or the other board to impress the world that he is a mighty man. In five years he has received a few feet drop. In ten years he is using two-thirds less medicine. In twenty years he is saying that he knows but little and will use from two to four drugs for all diseases. Continuing another five years, two medicines are enough to perform all the work, one for the stimulation of that which is below normal (and his experimenting will teach him which is best),

the opposite will be to deaden senses, demoralize function when it is acting in excess. Many M. D.'s have run the usual gauntlet and gone one better by quit using drugs and learning Chiropractic. Chiropractors could be dishonest but won't. The science is based upon fundamental facts that needs no misrepresentation.

The following late Associated Press dispatch verifies the above statements:

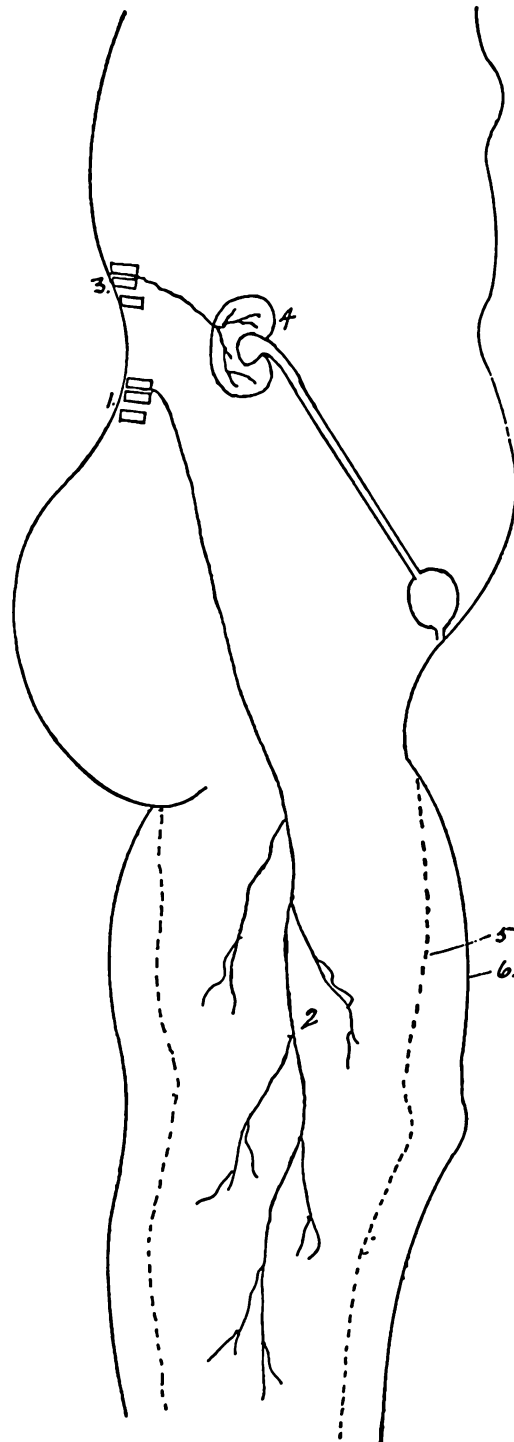
Philadelphia, May 11.—“He is the best physician who knows the worthlessness of most medicine,” quoted Professor William Osler, of Oxford University, England, in his lecture to the Pathological Society today at Pennsylvania Hospital. He said he would admit that there were four drugs of inestimable value in the practice of medicine. When he added that he would decline to name them a roar of laughter went up from more than 200 physicians.

Professor Osler said the world had more to hope for from the work of the Pathological Society than from medicine. Since the society's first meeting fifty years ago, the discoveries of the pathologists had revolutionized the practice of medicine. Thanks to the pathologists, whose duty it is to know the reason for every disease, and who, knowing its cause, *remove the cause*, the province of the physician has become of prevention quite as much or more than one of cure.—*Portland (Oregon) Journal*, May 11, '07.

Let us consider some of the abnormal conditions that follow interference with this system. General dropsy represents too much urea in the ureaic tissue. This is due to the inability of the kidneys to sap off or gather inward the urea as it is brought into contact with them. In local dropsy, where it is confined to a specific area, whether that be hydrocephalus or ascites, it will have, on combination, a subluxation which is impinging vermicular efferent nerves, not allowing sufficient mental impulses to that region, thus not enabling the muscular fibres previously spoken of to propel urea to the kidneys. For dropsy we would always find one subluxation; viz., K. P. and its union with that, determined according to the location of the restricted dropsy. Serum continues to circulate normally, but urea fails to go out, the result is that excretion of urea continues to gather but excretion ceases—dropsy—urination continues but the upholding is greater than the intake or outlet. The subluxation which produced either has never been adjusted, therefore exists and leaves that region weak—resisting abilities are depleted.

Why is it deposited locally? If there is a previous weakness, lack of mental impulse to that localized area, a pressure upon those vermicular serous nerves leading to the limbs, thorax, abdomen, skull, scrotum, etc., etc., then the local spot predominates as a dumping ground, and has, as it were, first call. The propelling or resisting power is depleted and has not the motion necessary to pass it on. What is the thing to do? Follow the course of the M. D. or D. O. and look to blood, *or adjust the cause at the spine?* Kidneys and the local area *must be returned to their normal tonicity*

by restoring action. Accordingly take off the pressure from those nerves going to the kidneys. They will then receive the normal quantity and quality of mental impulses. Remove the general hindrance and the kidneys will resume their normal work of sapping urea. This alone is not sufficient to make the individual well. The cause of *specific* weakness of serous cells must also be adjusted. After this the serous tissues in this area will propel forward their excess of urea until a normal state is reached.



Schematic drawing to illustrate dropsy of the limbs. Two subluxations, two effects working in combination. A combination cause for a combination effect. 1, lumbar region with lumbar subluxation affecting leg functions direct; 2, leg; 3, K. P. region of the spine with vertebral subluxation affecting the kidney; 4, kidney; 5, normal size of leg; 6, dropsical size and shape.

The larger percentage of patients with dropsy of the limbs have had, at some time previous to the manifestation of the dropsy in that area, a weakness; as rheumatism or paralysis. If the localized area has ascites then bowel or abdominal disorders prevailed. If it be hydrothorax, lung or chest difficulties.

We have viewed, briefly, an excess of urea thruout the system; concisely consider the opposite combination, diabetes. In this disease we have an excess of urination, which means that the sapping generally is in greater proportions than it should be; drying and taking from the body what it must needs have.

The Chiropractor simplifies symptoms so that, altho diabetes may exist in many forms to the M. D. or D. O., it is taught as one disease at *The Palmer School of Chiropractic*. The various figures but manifest a greater or less degree of pressure upon the same set of functional nerves, thus expression differs at the external, making slight variations in association of effects, and accordingly would be known as separate or different diseases. The M. D. is only capable of taking combinations of symptoms, diagnosing them, prescribing a treatment that he *thinks* will equalize them, thus it behooves him to have an acquaintanceship with symptoms. The Chiropractor's stronghold lies with *causes*, with which he can do more for each and every disease than all M. D.'s. There is not an M. D., unless he knows Chiropractic, that realizes where the cause of a single disease is. Send a Chiropractor into the field with only the understanding of how to adjust one subluxation for typhoid fever, and he is capable of delivering better results than have been delivered heretofore. That is how great the study of Chiropractic is.

To be able to adjust and correct *the* cause of typhoid fever is alone worth one hundred dollars to any man, and yet, in each *P. S. C.* course you are taught the causes of *all* abnormal functions and how to adjust the most difficult cases. Can there be any greater line of work to do, provided the Chiropractor be sincere and honest with himself as well as those with whom he comes in contact, and if he is square with himself he cannot be crooked with anybody else.

In diabetes we have a stimulated condition of the kidneys, an *excessive* vermicular action, made so by a *light* pressure on nerves as they emanate from the spinal column in their path to the kidneys. We may, or may not, have excessive heat. Sherlock Holmes' systematic study has deciphered cases of diabetes *with no indication of excessive heat*. If excessive heat is present its cause is due to *additional* pressure upon nerves of another function—calorific—in the same foramina; then follows diabetes mellitus—sugar in the urine, making the usual sediment.

Knowing that serum permeates every tissue in the body, is its "sap," we can see at a glance that its scope and importance are as wonderful to man as to the tree. Metabolism would be incomplete, expansion of germinal cells could and would not take place, and in many cases, where there is an anæmic condition, it is undoubt-

edly due to withdrawal of serum in these cells, reducing them to the collapsed state.

It has been an odd fact that from the early birth of Chiropractic K. P. has always been adjusted for kidney troubles. From that time until 1906 many symptoms were known to be "kidney troubles" and yet *definite reason why* that controlled the general moisture of the system thruout could not have been given by Chiropractic, any more than by the M. D. K. P. has always been corrected for "skin diseases," such as eczema, scabies, barber's itch, dandruff or any other form where there was a general eruption upon the epidermis. Internal eruptions likewise involve serous circulation. The knowledge of serous circulation clears many mysteries which had previously existed.

Nerves which convey mental impulses that control serous tissue in a specific locality are lightly impinged, hence the circumscribed locality will have excessive action, carrying forward *too fast* and the skin becomes dry and harsh. If there be additional heat with that, we will have an eruption upon the surface.

Some persons have general or local shiny epidermis representing lack of serum in that area. If the epidermis were receiving its proportionate quantity of serum this *could not occur*. The individual who does not perspire is always subject to heat strokes, for the body is unable to perform its wonted functions of perspiration—excretion thru skin. If sweating were normal, man could stand heat of 300 F. This would necessitate a corresponding amount of perspiration or sweat, the urea exudating accordingly.

How nicely that was brought out in today's new clinic. In questioning as to whether the kidneys acted freely she replied, "The kidneys operate more than fifteen times a day, and sometimes more." When asked if she "felt the heat in summer more than other girls," she answered "Yes."

"When we speak of a light pressure being equivalent to excessive action, it is with the understanding that we are considering the current that is being transmitted. In electricity we speak of a current of resistance (ohm). To speak of current alone would be incomplete, so we refer to the current and resistance as an ohm of electricity; time does not enter into the transmission of electricity to any great extent, but it does with amount. With every 100 per cent of impulses as to quantity and quality that are expressed we must include a unit-of time, which we may call one minute. Six minutes equal 600 per cent of impulses. With a light pressure upon this particular fibre two minutes of time might be equivalent to 250 per cent, showing that the absence of the 50 per cent would be allowed for. Time, quality and quantity must be considered together to make a unit, either normal or abnormal. Under heavier pressure the 100 per cent of quality and quantity per one minute of time is greatly reduced.

The diameter of the fibre is so much reduced that it is impossible for the quantity and quality of impressions, per the same time, to go thru such a small opening.

In considering a tumor of large size we must agree that there is an excess of material, but if one place gains in cells, another loses—ossific cells, for instance. Let us say a humerus has a life of sixty years and 60,000,000 ossific cells—if the 60,000,000 cells are all spent at the age of 40, then we will have a tumorous growth of an ossific character on that humerus because we might say the cells have arrived twenty years too soon—part of them, at least. We might just as well be ten feet tall as six feet.

It may seem hard to account for the reason why a person will run for three weeks with a temperature of 103, 104 or 105; no question but what we have excess of material per the three weeks, but I have just stated that quantity and quality of impulses are considered with time involved. I did not say how much time, other than to confine myself to 100 per cent of impulses being equivalent to one minute. We find now instead of a period of twenty-one days, covering so many hours and months, that which reduces us again to a unit of quality considered with a unit of time; but we find now that after three weeks the person again gets below normal in what is known as a relapsed condition, the period in which the loss of the current is being shown.

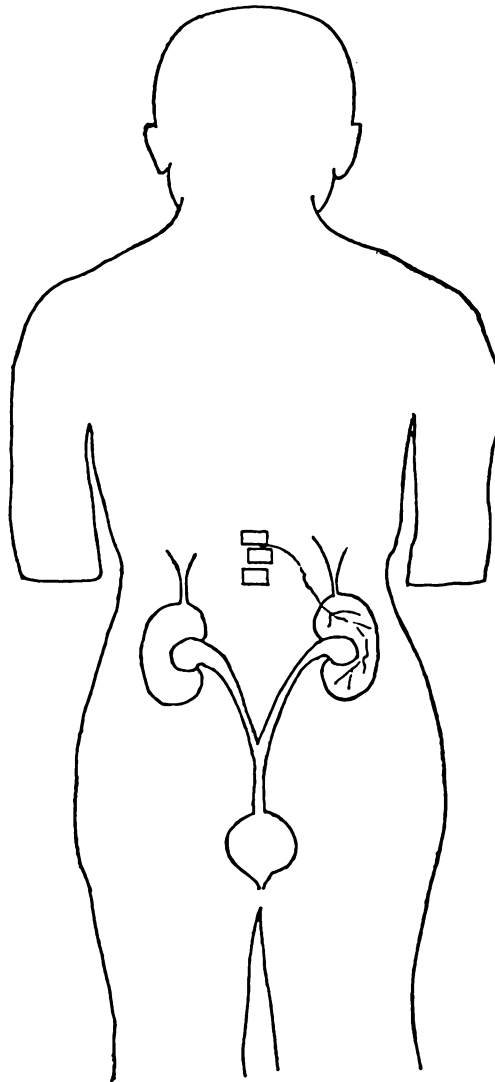
Wherever there is an excess of current there is always a certain amount of depletion of certain cellular constituents, wherein they have been utilized in excessive quantities; or wherever there has been an absence of current there is an absence of function; the quantity of depletion depending upon how great the pressure. With this state of affairs existing, it is almost unreasonable to expect that just the moment the adjustment has been given and the current thrown into the nerves that the patient should get up and be as well and hearty as ever, because it takes a certain length of time for these cells to be repaired, repleted.

Where an osteopath would find nothing wrong, a Chiropractor will find a subluxation. The Osteopath will locate something wrong at the end of a rib and adjust that, but does not go back to the cause—a subluxation of a vertebra.

We have had one clinical case recently that has been a remarkable one. His general skin was *very* dry and scaly. When you raised the shirt a little cloud of scales would fly. The hair was so moistureless that if doubled back upon itself it would break. Hair and beard had lost the color pigments until it was almost white. The individual never perspired but always felt the heat excessively. Following the adjustments, *which corrected the cause*, there has many times been a copious perspiration break out over the body. The permanency of improvement that this cause has attained is the general oiliness of the skin, which is soft now compared to what it was, and the hair and beard are returning to their former color, which was brown. We have not had a case, recently, that illustrated serous circulation so beautifully as this.

Last summer's clinic had a patient who perspired only on left side of face and body, indicating a localized abnormality; one-half was not performing its wonted duty. He suffers with heat on that

side and is normal on the opposite. Adjustments have restored coördination. In addition to dryness and harshness of skin the subluxation produced additional pressure upon nerves which control *the utilizing of* nutrient substances in that specific locality. Dry skin existed and, in addition, nutrition was taken away; the tissue when wasted away in quantities, and eczema in one of its numerous possible forms appeared, the degree and kind of manifestation depending entirely upon how great a pressure upon nerves controlling these functions existed at the spine.



Schematic drawing to illustrate how a K. P. subluxation might produce pressure upon only one side, thereby involve only one nerve leading to one kidney rather than two, leaving its opposite or mate practically normal.

In connection with serous circulation let us consider the equivalent values of blood circulation. Serous circulation is the general passing to and fro thruout our body, of all that which is food in transitional liquid forms. *Kirk* tells us that blood is 80 per cent serum. The brain is seven-eighths water. Suppose we remove the serum from blood and what have you? Twenty per cent *solid corpuscles which cannot circulate*; it would cease to flow, proving the necessity of serous circulation, which makes blood pliable.

Considering the body as two-thirds water and but a small percent blood, the latter circulating oxygen and the former all nutritive substances; then we must fall back upon serous circulation as *the first and greatest* giver to the other. We must conclude—at basis—serous circulation is of far greater importance than blood circulation.

It is amusing to me oftentimes, in comparison, to see osteopathic authors use the same adoration and awe of blood circulation. If this were to be "obstructed, hindered or impeded," disease would be the result. No greater authority on osteopathy can be found than Dr. A. T. Still, who says "the rule of the artery is supreme, that upon blood depends life, and the second interference with blood circulation is created that moment marks the advent of disease." *A. T. Still has never referred to the nervous system and to Innate with philosophical completeness.*

They have stood like hungry birds, with open mouths, and accepted with wonder the same bloody theories that mother birds (M. D.'s) have dropped into their buccal cavities. The same principles that prove no basic *results* physiologically, philosophically, and anatomically, have been honored, respected and adored. The difference being in the manner of treatment of the same visions, day dreams, and phantasies. Blood circulation is all, if not more, to the Osteopath than to his ancestor.

As our lecture embodies both subjects tonight, let us consider; we have at basis a heart, and from that the aorta, its divisions, smaller branches, arteries, capillaries, which are only one five-hundredth of an inch in diameter, distributed to each tissue, and every square inch has from two to three hundred capillaries. *When consideration is given the established fact that there is an intermingling and intercommunicating system of anastomosis*, with a most complete returning system, it seems an impossibility, from internal reasons, whether it be under the guidance of Innate or not, to *in any way stagnate this flow of blood.*

See *Kirk*, P. 276, *Gray's Anatomy*, p. 474, 15th Edition, says: "The arteries, in their distribution, communicate with one another, forming what is called anastomosis, or inosculation, and this communication is very free between the large as well as between smaller branches. The anastomosis between trunks of equal size is found where great activity of the circulation is requisite, as in the brain; here the two internal carotid arteries are connected by a short communicating trunk; it is also found in the abdomen, the intestinal arteries having very ample anastomosis between their

larger branches. *In the limbs the anastomoses are most numerous and of largest size around the joints, the branches of an artery above inosculating with branches from the vessels from below. These anastomoses are of considerable interest to the surgeon, as it is by their enlargement that a collateral circulation is established after the application of a ligature to an artery for the cure of aneurism. The smaller branches of arteries anastomose more frequently than the larger, and between the smallest twigs these inosculations become so numerous as to constitute a close network that pervades nearly every tissue of the body."*

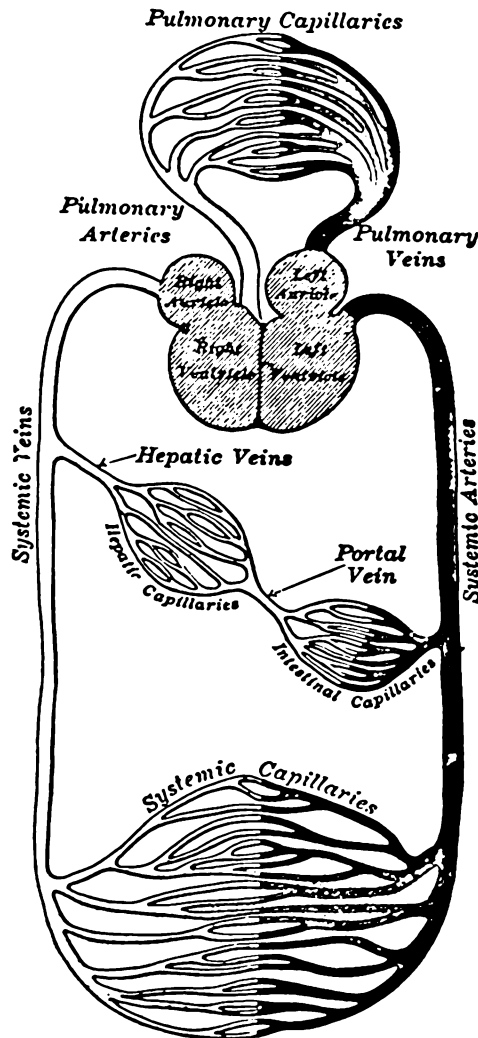


FIG. 265.—Diagram to show the course of the circulation of the blood.

Schematic drawing to illustrate the circulation of the blood, systematically. (After Gray.)

Kirk's Physiology, 17th Edition, page 276, has the following to say regarding the anastomosing of venous blood. He carries the thought that is directly concerned with disease as taught by Osteopathy, obstructed blood, venous or arterial, is the cause of disease :

"When pressure is applied to any part of a vein and the current of blood in it is obstructed, the portion behind the seat of pressure becomes swollen and distended as far back as the next pair of valves, which are in consequence closed. Thus, whatever force is exercised by the pressure of the muscles on the veins is distributed partly in pressing the blood onward in the proper course of circulation, and partly in pressing it backward and closing the valves behind.

"The circulation might lose as much as it gains by such an action, if it were not for the numerous communications which the veins make with one another; thru these the closing up of the venous channel by the backward pressure is prevented from being any serious hindrance to the circulation, since the blood, of which the onward course is arrested by the closed valves, can at once pass thru some anastomosing channel, and proceed on its way by another vein. Thus, the effect of muscular pressure upon veins which have valves is turned almost entirely to the advantage of the circulation; the pressure of the blood onwards is all advantageous, and the pressure of the blood backward is prevented from being a hindrance by the closure of the valves and the anastomosis of the veins." So highly does this anastomosing become that there is no cell but what has its anastomosing blood. In fact, the anastomosing is the circulation.

No matter where pressure is applied upon an artery or vein you cannot stop the onward flow of blood. Try the experiment by placing your finger upon the radial or ulnar artery and observe if you raise the temperature of the hand; see if mortification sets in. Anastomosis will return the blood to every tissue within a second's time.

Produce pressure upon nerve fibrils and you directly and immediately interfere with mental impulses, as it only has one starting point and one peripheral; thus any obstruction midway means a loss of impulses at its periphery. There is no anastomosis of mental impulses; such is impossible.

One set of nerves transmit impulses which, by their expression at peripheral plate endings, cause chemical combustion. Chemicals are carried and deposited by the independent serous circulation; oxygen is transmitted by arterial blood circulation; after which the mental impulse circulation causes combustion, which is heat. A function which blood has nothing to do with outside of carrying oxygen to and carbon dioxide from. This cannot be interfered with because of the most complete anastomosis.

Veins have the same complete anastomosis and must be identical, so that venous capillaries receive as arterial capillaries *expe'*. *It is impossible, coming or going, to impede, obstruct or hinder blood*

circulation. This proven, which is an anatomical and physiological truth, we can readily conclude that blood cannot make or diminish the quantity of heat. The matter cannot help but be carried, the necessity to have heat being the addition of impulses. Retard or hinder these, and excessive heat or lack of it is the result.

Chiropractic teaches that functions are mental impulses expressed. The blood is a servant to mental impulses, has the single function of supply material for combustion and other chemical constituents to the tissue cells as demanded by nerves, and is there again acted upon by impulses from other nerves of different functions, utilizing it as caloric for that cell. Blood circulation is an agent to carry and expel as demands of mental impulses are made upon it.

In regard to our position on the function of blood we might call your attention to the similarities and differences between a man and a tree.

A man has—

Life,
Nourishment,
Movability,
Internal Heat.

A tree has—

Life,
Nourishment,
Immovability,
External Heat.

Both get nourishment thru a serous circulation. The tree being stationary, needs no motor impulses, and as it is immovable, it needs no internal heat to keep its parts moving freely—shall we say? The tree has no blood circulation; man has. Now, man also has internal heat—we contend that blood circulation generates this internal heat.

The tree lives its life, producing or assimilating nourishment; it has its currents the same as man; the tree gets its nourishment from its sap (serum) system the same as man, so that so far as we are able to prove out, the difference between the two lies in these two points—the one requiring internal heat has a blood circulation, while the other has not.

Chiropractic brot forth, for the first time, the knowledge that heat was direct result of impulse action. Slight pressures upon calorific nerves ending in feet mean excessive (stimulated) combustion, hence excessive heat. Legs are hot, yet blood circulation, according to all known means or tests, is normal. Pulsation is the same in strength and quantity in feet as in heat, proving that circulation did not make excessive heat. One Chiropractic adjustment *immediately* makes feet normal. What did it? Did the adjustment of a vertebral subluxation reduce the quantity, quality or speed of the blood circulation, or did it release pressure upon calorific nerves, thus reducing combustion?

I might say that we do not obstruct serous circulation any more than blood circulation. It has its starting points and its ending points and a most complete anastomosis, but you will find that each tissue cell receiving nutrition from the serous circulation is a unit unto itself. We might say that a stagnated circulation

was nothing more nor less than the inability of one or multitudinous tissue cells at some place to perform their function of receptivity and expulsion—the difficulty lying in the tissue cell itself, not in the flow of the serum, urea or other liquid thru it.

Eighty years ago bleeding was the cure for fevers. How about the patient that was bled until too weak to talk? He still had the fever. Did blood do it?

Some persons, when angry, will get pale faces and others will get white. Thus do we study the conditions of pigmentation.

Blushes are supposed to be caused by a "rush of blood to the head." How about the individual who has red cheeks and face having normal heat? Does blood do it?

What about the typhoid fever case of three weeks' standing? Temperature 104 and yet "as white as the sheet." No flushed condition there and yet a fever exists. What do these thots lead us to? That *blood* has nothing to do with combustion and making the heat of the body. This is a separate and independent function of calorific nerves. Any interference with these impulses will mean disease, too much or not enough heat.

Knowing that impulses directly cause chemical combustion and that many symptoms are the effects of excessive heat due to the direct result of pressure upon calorific nerves, how much better and quicker the results would have been to go directly to the cause, and adjust the subluxation, instead of treating effects. The Chiropractor directly does that, releasing pressures upon nerves, which Innate Intelligence controls. Each function is then performed, thus getting back to cause. By so doing he uses only one move to each subluxation.

Osteopaths teach that blood *can* impede in its flow by contracted muscles. Let us refer to clinic cases Nos. 53 and 29. Both are kyphoses of the worst type, muscles are and have been permanently contracted for years and yet *their* pulses are beating normally. In addition, how about the case we recently had of stiff neck, and I believe you could easily have found the carotoid artery and counted its pulse. Flex the arm, contract your muscles at the same time. Contract and counter-contract to make each muscle tense. Now there exists contractures, voluntarily made, and in that condition feel the pulse. You will find them beating *just the same*. There is no interference. What must be the conclusion?

For instance, an acute case adjusted this noon. The knee joint was swollen twice as large as the other. Patient was suffering severe pain. Agony was on her face. The knee was so painful she didn't want the back adjusted. Leaning on my assistant, with the toes of the left foot barely touching the floor, she did get to the adjusting table. Examination proved that muscles were contracted and *there was no obstruction to the blood*.

No anatomist or physiologist, basing his deductions upon that foundation can scientifically maintain that blood can be congested. Even tho he might wish to carry the point, it is impossible. The

only man that does give credit to, or consent to the opinions of others on that ground is the pathologist, and then, not because anatomy or physiology backs him up in his opinion, but because he is compelled to offer that excuse (and can see no better) for a certain or many so-called "diseased, stagnated, impeded blood diseases" in the body, *the real cause* of which is not known; nor does he recognize cause other than that falsified basis which any anatomy or physiology will contradict. Therefore it behooves him to fill a niche for which he knows no basis nor foundation; therefore it behooves him to offer some excuse and "congestion" of blood is the result. He does not know the cause of a single effect, other than what exists in material form, therefore drops the subject upon the immaterial but still holds fast to the bloody material. I object to the word "congestion" in any connection, upon the grounds that, physically, it is not used in any other connection than with blood, and that flow it is impossible to stagnate because of the most ample anastomosis.

An Osteopath would say that blood is the cause producer of fever. His treatment would consist in relaxing those muscles to complete its normal circulation and he, like anyone of a hundred practitioners, would have *relieved effects in that way*. An M. D. would have injected morphine or cocaine to *relieve symptoms*. But a Chiropractor was called. He *examined the lumbar vertebrae, found a subluxation*, impinging nerves on the left and none upon the right. He adjusted it in *one second*, heard it pop as it returned to normal, and said, "Get up," and boastingly she walked to the bed. In lying down the leg was straightened, muscles *were entirely relaxed*, something she could not do for twenty-four hours, for she sat up most of the night with hot water bottles, etc. Did the Chiropractor restore the circulation of blood in that knee in one second's time? Did he relax muscles in just so short a time by working over two feet away from the affected place, or did he, on the opposite, release pressure upon those nerves which convey calorific mental impulses to that area thus reducing excessive heat to normal? The Chiropractor says, "Excessive heat is the result of an over amount of mental impulse, calorific in character, going to a certain tissue, which is like the electric spark to the motor. As quick as the finger could be snapped he released that impingement, the nerve resumed its normal function, and tonight the leg, instead of being swollen and painful, is normal. Does "impeded blood" explain the *how* and *why*?

In regard to the "Regulation of the Temperature of Warm (bodied) Animals. *Kirk's Physiology*, p. 600, has the following comments. I particularly direct attention to the connection that he *tries* to make between the nervous systems, some doubts of which still exist in his mentality. His attempts are in the right direction.

"These various influences *are regulated* by the nervous system, and physiologists have long suspected that *afferent* (impressions) arising in the skin or elsewhere may, through the central (Innate)

nervous system, originate *efferent* impulses, *the effect of which would be to increase or diminish the metabolism of the muscles and other organs, and by that means increase or diminish respectively the amount of heat there generated.*

“That this is due to a (responsive) nervous impulse is supported by the fact that a warm (bodied) animal, when poisoned by curare, no longer manifests its normal behavior to external heat and cold, but is affected in the same way as a cold animal. Section of the medulla produces the same effects as when the nerve-channels, by which the impulses travel, are served. When curare is given, the (responsive) chain is broken at its muscular end. The center of this thermotaxic (responsive) mechanism must be situated somewhere *above the spinal cord*; according to some observers, in the optic thalamus.

If each one will study blood circulation, arterial or venous, from the standpoint of anastomosis, he will *know how absolutely impossible it is to obstruct blood from internal causes. External means may be had by ligature. But there is no means internally that can be created to produce the same conditions of a ligature which is the only means applicable for stopping the circulation of blood.*

To have pressure upon blood vessels, whether it be arterial or venous, means a soft tissue must be between two hard substances. (How many have given the subject of pressure any considerable attention? How many confuse displacement of structure with compression of structure? Pressure, in every sense of the word, means there must have been *compression* of something—not something pushed out of position. To have pressure we must have a solid substance entirely surrounding a soft structure or substance—or have the soft structure compressed between two solid substances. There is only one place in the human body where a soft structure is entirely surrounded by a hard one, and that is at the Intervertebral Foramina, where the nerves may be compressed by the vertebræ becoming subluxated.)

As the calibre of an artery is distorted you *are* interfering with *its capacity* (not quality), and immediately it has small anastomosing channels thru which the checked blood flows, so that the circulation loses nothing by the obstruction. It does not matter where the same condition *might* exist, whether in the spinal cord or the intervertebral foramina. Repress them as you will, *it gets around another way*, makes its entrance thru other openings. The only possible place where arteries or veins can be pressed by two osseous substances is between intervertebral foramina. Ribs are supposed (by osteopaths) to be *the cause* of arterial disturbances. Granting (for the sake of argument only) that there can be pressure, it ceases to be a damage if we anastomose the blood thru other courses.

The P. S. C. has been pace-setter for all that pertains to original, independent, Chiropractic thinking. The M. D.'s are *afraid* to. D. O.'s *try to* reason on wrong premises. If they ignore hidebound sets of rules, there is danger. The first thing done to a student entering a medical college is an examination to find if he has brains enough to advertise, and if he has, no matriculation follows. If he graduates, and becomes a member of several societies, then he is "churched."

The ductless glands, about which very little has been known, are an immense item in the economy. They are as important, if not more so, than those with ducts. *Kirk's Physiology* has the following to say regarding them. The remarks in parenthesis are mine, added to give logical sense in connection with the topic of this lecture.

The ductless glands form a heterogeneous group of organs (all) of which are related in function or development with the (serous) circulatory system. They include the lymphatic glands, thymus, thyroid, supra-renal capsules, the pineal body, the pituitary body, the carotid and coccygeal glands. The function of a gland that has a duct is a comparatively simple physiological problem, *but the use of ductless glands has long been a puzzle to investigators.* (The knowledge of Serous Circulation clears the mystery and but makes of these links a chain.) Recent research has, however, shown that *most, if not all, the ductless glands, do form a secretion*, and this internal secretion, as it is termed, leaves the gland by (serous circulation) and thus is distributed and ministers to the (nutritive, lubricating; expansive and moistening) needs of the body. *Many of the glands which possess ducts and form an external secretion form an internal secretion as well.* Among these the liver, pancreas, and kidney may be mentioned.

"In many cases the internal secretion is essential for life, and removal of the gland that forms it leads to a condition of disease culminating in death. In other cases the internal secretion is essential.

"The body is a complex machine; each part has its own work to do, but must work harmoniously with other parts. Just as a watch will stop if any of its numerous wheels get broken, so the metabolic cycle will become disarranged or cease altogether if any of the links in the chain break down.

"In unraveling the part which the ductless glands play in this cycle *it is at present impossible in many cases to state precisely what the particular function of each is; all one can say is, when the gland is removed or its function interfered with, that the metabolic round is broken somehow (How?) and that this upsets the whole machinery of the body.*"

In speaking of the spleen the same author says: "Structure—*The spleen is covered externally almost completely by a serous coat derived from the peritoneum* (which is serous also), while within this is the proper fibrous coat or capsule of the organ. The latter

is composed of connective tissue ("serous in function"), with a large preponderance of elastic fibres. * * *

"Besides these direct offices the spleen fulfills *some* purpose in regard to the (serous) circulation, with which it is in close connection. *From the readiness with which it admits of being distended, and from the fact that it is generally small while gastric digestion is going on, and enlarges when that act is concluded, it is supposed to act as a vascular reservoir, or diverticulum to the (serous) system, or more particularly to the vesicle of the stomach.*" The above facts, with the knowledge of *having located the Ductus Palmerii, leading direct from the spleen to the stomach,* and the close observation of symptoms that follow enlarged spleens, in their reducing, following adjustment, etc., causes the P. S. C. to teach that *this is the organ which makes splenic fluid and at times of digestion empties it to the stomach "while gastric digestion is going on," the same as the liver or pancreas empties its fluids into the duodenum.* This accounts for its smallness in size at that time. In the stomach it is *gastric juice*, not made by the mucous glands of the walls of the stomach, for they secrete mucin, *which is not a digestional juice there more than in the œsophagus.*

The histological fact remains that *all* glands have a "fibrous capsule" surrounding them and it is this serous tissue that conveys to the internal, and to and from the external, juices of each gland. In speaking of the "Thymus Gland," Kirk says: "Structure—The gland is surrounded by a fibrous capsule, which sends in processes forming trabeculæ, that divide gland into lobes. The large trabeculæ branch into small ones, which divide the lobes into lobules. The lobules are further subdivided into follicles by fine connective tissue.

"The Supra Renal Capsules. Structure—The gland is surrounded by an outer sheath of connective tissue, which sends in fine prolongations forming the framework of the gland. The gland tissue proper consists of an outer firmer cortical portion and an inside soft, dark medullary portion.

"Function—The immense importance of the supra-renal bodies was first indicated by Addison, who, in 1855, pointed out that the disease now known by his name is associated with *pathological alterations* of these glands.

This was tested experimentally by Brown-Sequard, who found, a few years later, that *removal of the supra-renals* in animals *is invariably and rapidly fatal.* The symptoms are practically the same (altho more acute) as those of Addison's disease, namely, *great muscular weakness, loss of vascular tone and nervous prostration* (general mental to physical incoördination). The pigmentation of the skin, however, which is a marked symptom in Addison's disease, is not seen in animals. The experiments of Brown-Sequard attracted much attention at the time they were performed, but were almost forgotten until quite recently, when they were confirmed by Abelous, Langlois, Schæfer and others. *The effects on the muscular system are the most marked results,*

both after removal of the capsules and after injection of an extract of the glands. The effect of injecting such an extract on the voluntary muscles is to increase their tone (temporarily, the same as whiskey stimulates).

"The capsules, therefore, form something which is distributed to the muscles and is essential for their normal tone; when they are removed or diseased the poisonous effects are the result of the absence of this internal secretion.

"Whether this discovery will lead to the same important practical results as in the case of the thyroid and myxœdema must be left to the future to decide." (This subject was carried as regards this extract, where it came from and its name, in the early part of this lecture.)

"The Thyroid Structure—The Gland is encased in a capsule of dense ærolar tissue. This sends in strong fibrous trabeculæ, which enclose the thyroid vesicles.

"Function—It is difficult to state definitely the function of the thyroid body; it is one of those organs of great importance in the metabolic round, and its removal or disease is followed by general disturbances. It no doubt forms an internal secretion.

"When the gland is diseased in children and its function obliterated, a species of idiocy is produced called cretinism. The same conditions in adults is called myxœdema."

A. A. Ezra, D. C., then a student of *The P. S. C.*, has made a special study of Serous Circulation, centralizing his investigations to this latter gland. His observations have been preserved in a very carefully edited paper. Its additions and importance are such that no more fit place could have been found for its perpetuation than following this lecture, and with your endurance I shall read it.

THE THYROID GLAND—WHAT SCIENCE DOESN'T KNOW ABOUT IT—AND ITS RELATION TO THE SEROUS CIRCULATION.

The purpose is not to enter into the text-book details of this subject. Recent research on the Thyroid Gland dates from 1887, when Dr. Schiff published his observations on the effects following extirpation. Since then about 35 monographs, dissertations or special works have been published (20 by German investigators, 10 English, 3 French, 2 Italian specialists and 1 Swede).

The Thyroid or shield-shaped gland is situated at the front and side of the neck, being closely adherent to the upper part of the Trachea and adjacent parts of the Larynx. It consists of two lateral lobes which are connected across the center by a narrow transverse portion, the Isthmus. The Lobes are conical in shape, the apex of each being directed upward and outward as far as the junction of the middle with the lower third of the thyroid cartilage; the base faces downward and is on a level with the 5th and 6th tracheal ring, which corresponds to the upper border of the Ster-

num. Each lobe should measure about two inches in length, one and one-half inches in breadth, and three-fourths of an inch in thickness at its largest part. Its usual weight is between one and two ounces. It is largest in children, and larger in females; the right lobe is usually larger than the left. Each lobe is fixed to the Larynx and Trachea by the lateral ligaments. The superficial surface is convex, and covered by the adjacent muscles and the pre-tracheal layer of the deep fascia. The deep surface is moulded over the underlying structures, namely: the Thyroid and cricoid cartilages; the Trachea, arteries and nerves. There is an occasional third lobe called the Pyramid, which arises from the superior part of the Isthmus, or from adjacent portions of either lobe, or it may be detached and divided into two or more parts, extending as far up as the Hyoid bone. Small detached portions of Thyroid tissue are sometimes found above the Isthmus, and are called Accessory Thyroids. The Parathyroids are small rounded bodies with an average diameter of about one-fourth of an inch and are situated near the Thyroid Gland, in relation to the posterior surfaces of the lobes, usually two on each side.

The structure of the thyroid is similar to that of glands in general, corresponding more closely with that class termed ductless. By this is meant, according to medical and osteopathic authorities, that there is no direct separate duct like the Ductus Palmerii of the Spleen, carrying externally the secretion of the gland. However, there *must* exist *some kind of* a duct system, by which the secretion is excreted into our economy, otherwise the gland will become clogged and useless. Its general structure consists of a mass of glandular lobules made up of follicles or minute sacs which are supported by a connective tissue stroma. The investing dense capsule of the gland is serous in function and derived from the continuous serous deep fascia of the neck. It sends numerous trabeculæ or bands into the structure itself as septa producing lobular subdivisions and partitioning them into follicles of different size, the largest of which are just visible to the unaided eye, the extremely delicate fibrous network investing the follicles also forms a basement membrane for the epithelium which by a single layer of cuboidal cells lines each follicle. These follicles are filled with fluid or colloid substance, which is being formed by the secretory activity of the epithelium.

In regard to the specific function of the thyroid nothing *definite* has been ascertained by our pseudo-scientific friends of the medical schools. The solving of this problem has been left to Chiropractic research. Glands produce a secretion; each *must* have in turn its excretion, as the liver or kidneys. The *so-called* ductless glands, like the thyroid, constitute a transitional serous tissue with a specific cellular structure and chemical activity especially adapted to the performance of a definite function. In fact, they secrete one of the most important excretions that is carried thruout the body, doing so by a special duct system in each gland and in general tissue for the entire body, which Dr. B. J. Palmer, its discoverer, calls

"Seros Circulation." Their secretions are of greatest importance to the metabolism of our economy, since they are essential to the normal condition and activity of all tissues, including the blood and nerves. If we remove, for instance, the Thyroid or the Supra-renal Capsules, the general nutrition *is* seriously disturbed, it declines, and finally, a fatal terminal ensues.

Indeed, our past knowledge of the function of the Thyroid has been limited, as it is the outcome of the study of effects following its arrest of development in the child, functional derangement, degeneration in the adult and its extirpation, which is attended with fatal results. In case of congenital or acquired causes producing abnormal conditions of the Thyroid, before the age of puberty, when its functions are obliterated, we have this abnormal organ as one of the symptoms of Cretinism, a state of idiocy. Goitres are hypertrophy of the thyroid. In case of myxœdema which, altho a general disease, has, prominently expressed, a local loss of function of the thyroid, we have hyperplasia, and abnormal serous change in the subcutaneous tissue as well as mental failure. Thus we conclude, the thyroid secretes one of the necessities for important metabolism and chemical changes; also, that it is this organ which forms one of the substances essential to the healthy working of the body.

The thyroid structure contains the essentials required for secretion; since we find an epithelial surface with a tunica propria of connective tissue, and we have a controlling involuntary or Innate mental impulse supply. It has been observed that the serous secreting cells of the glands are capable of alternate phases of activity and comparative rest. Many, if not all of them, contain minute *intracellular* canals which connect with a network of *intercellular* passages. The intercellular canaliculi open into the glandular lumen, or communicate with the tissue spaces of the tunica propria. This system of intracellular and intercellular canaliculi thus serves either as a network of secretory serous capillaries by which the secreting cells to the lumen of the gland, or to the duct system thru which the secretion is carried over the organism. Nutrient and secretory canaliculi of this nature has been demonstrated in the liver, salivary glands, the pancreas and supra-renal capsules; they have also been found highly developed in the nerve cells, and no doubt can be demonstrated in the thyroid. Further Chiropractic research will enable us to establish the "Seros Circulation" in its completeness, an accomplishment of which every Chiropractor will have good reason to be proud.

My remarks must be confined to the subject as outlined. We will consider one of the principal diseases of the thyroid, myxœdema, as it is called, by our mystifying medical friends. It is of rather rare occurrence, but we have a typical case of it with us that I had the privilege, in common with you, to observe and analyze. With the kind permission of the patient, I refer to our esteemed fellow student, No. 30. I call your attention to the characteristic serous circulation symptoms so markedly expressed in this case.

Myxœdema occurs seven times oftener in women between 30 and 50 years of age than in men. Dr. Ord, in 1888, published the first account of his observations on this constitutional disease. The lack and loss of normal function of the thyroid is one of the local symptoms of this general disease which is followed by degrees, with an abnormal change and hyperplasia in the subcutaneous tissues over the body, as well as mental failure and final atrophy of the gland. Thus, mind and body are seriously affected. Soon after the onset of this disease we observe a marked increase in the general bulk and weight of the body, especially in the face and extremities. A firm, inelastic swelling of the skin, which does not pit on pressure, is noticeable. The skin becomes dry and rough, and is of a brown, yellowish hue. The urine is reduced in quantity; the urea is diminished. The bloated face shows coarse, broad features and its expression is dull and unrelieved by any passing emotion or interest. The eyelids are thickened and baggy, the eyebrows raised and arched like those of a Mongolian. The eyesight usually blurred. The mouth seems enlarged, the lips are thick, the nostrils broaden. A reddish patch extends over the heavy cheeks and often over the nose. Especially above the clavicles there may be considerable tumefaction. The hair indicates imperfect nutrition, being brittle and dry, the teeth may be affected with sordes. Severe headaches. Excessive secretion takes place in the stomach and fecal matter is in a costive condition. The body temperature is sub-normal; the patient very susceptible to cold, and also complains of weakness and drowsiness. The body movements become heavy, slow and ungainly; stumbling and falling are not infrequent. Tactile sensations are slowly received. In the early stage no great impairment in quality of mental processes are noticeable. But later on the intellectual functions become slow, the memory becomes defective, the formation of ideas and answers to questions take far longer than in healthy persons. The voice is much changed, becomes monotonous, is not clear nor resonant, and the speech deliberate. Some patients grow deaf, irritable and lethargic. In many cases delusions and hallucinations may finally lead to dementia. The disease is slow and progressive; its natural run being from ten to fifteen years, and even beyond that, as is the case with our patient. Some intercurrent disease, usually tuberculosis, brings death and relief under medical treatment.

On the other hand, loss of abnormal weight and bulk of body are signs of improvement; the skin, by degrees, resumes its natural rosy color and becomes moist and smooth; the urine increases; the body temperature gets normal; the body movements become elastic, firm and gainly. In short, all functions of mind and body in course of time return to normal; coördination is reëstablished, health restored—under Chiropractic adjustment *only*, if you please—as our case referred to is demonstrating.

I trust from the foregoing you have learned, with me, the *paramount* importance of the *Serous Circulation* and the importance of the small thyroid gland which is one of an endless chain. I re-

frained from repeating the different pseudo-scientific superstitions in regard to the thyroid which you can find in any of the medical text books. I am glad to state the extirpation of this gland, which in my estimation constitutes a crime, is at least considered unjustifiable by all conservative, rational representatives of true science.

To the common or expert medical man, the diagnosis of Myx-œdema seems to be no easy matter, as our patient can testify. In fact, they often mistake it for Anemia or Bright's disease. Some of the leading physicians of Europe—whose fame is world-wide, and whose names can be ascertained from our patient—failed to recognize the true nature of this case. While a plain student of Chiropractic of *The P. S. C.*, was the first to give a correct analysis.

Thus humble effort is most respectfully dedicated to the *Prosperous Patient*, who so kindly consented to become the object of my observations, the result of which is herewith submitted for the benefit of suffering humanity and the *Science of Chiropractic*.

Davenport, Iowa, 1906-7, P. S. C.

A. A. ERZ, D. C.

Serous Circulation (Review)

The subject reminds me of Agassiz, the naturalist, who, when asked to deliver a lecture on "A Common House Fly," replied, saying it was one of the impossibilities. "Can it be that you, Agassiz, the world's greatest naturalist, cannot deliver a lecture on the common house fly?" To which he replied, "Had you asked me to talk regarding a hair taken from the toe of the foot of the fly, I believe I could have done it justice in an hour's time, but to deliver what you want is beyond the limitations of man." And so, when asked to deliver a lecture on the serous circulation in an hour, I find it one of the impossibilities, because you can understand that to go through the logic necessary to establish a circulation which is distinct, radically new and different would require months or years of investigation, in endless numbers of books and thoughts. Consequently, to ask an individual, even though he be the discoverer, to give you a thorough comprehension, establish it in your minds, in the space of an hour, is impossible.

In the light of that fact, and to give some of the phases we have gone through, it is necessary to review the circulations of man as human minds have taught them of modern times.

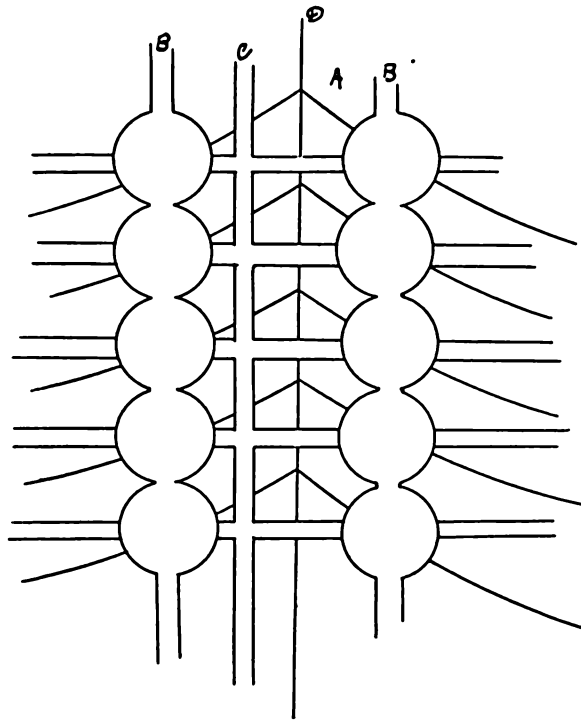
The air circulation idea was in existence previous to the time of Harvey, when it was generally known that there was a series of tubes which were empty during death, and contained air during life; that so far as the tubes were full of air, the individual was alive and healthy. If the tubes were apparently flattened, collapsed, and showed an absence of air, then that man was sick and diseased. How far this idea preyed upon the minds of the investigators they have fully demonstrated.

This brings us up to the time of Harvey, who was an eminent physician, thoroughly posted, working step by step scientifically until he assumed the position of physician to the King of England. Quietly going about his investigations, he reached a conclusion that the tubes, supposed to be filled with air, were filled with a circulating fluid, red in one part, and of a darker hue in another, and he established sufficient tests in his analytical mind to announce to the medical world that he had discovered a circulation of a fluid called blood. He quietly announced this at a medical meeting. It is sufficient to say, after two or three years, Harvey found himself ostracized by physicians at large, forced from his position as physician to the King, losing his patronage, existing in the gutters, and finally dying, the way most thinkers do, by starving. He was put down and out, because he dared to uphold what to him was truth, even though in his and the minds of many ardent followers he had not thoroughly established scientifically the demonstrable facts of the blood circulation. A man can evolve an idea which is correct, but it may take years to scientifically prove its existence, and while Harvey had gone through sufficient proofs to demonstrate what he knew were facts, when he put them to physicians they saw no light

because they looked at Harvey's idea with a prejudiced mind and preconceived ideas, and instead of seeing what he saw, they saw nothing. Therefore he couldn't get them to understand what he understood.

Next, a circulation of lymph was thoroughly established, and so great is this lymphatic circulation in the minds of many pathologists today that we have a serum therapy and treatment, based upon its application, fully intending that its injection will reach the lymphatic circulation and by so doing perform functions which by their observation seem absent in the lymphatic circulation.

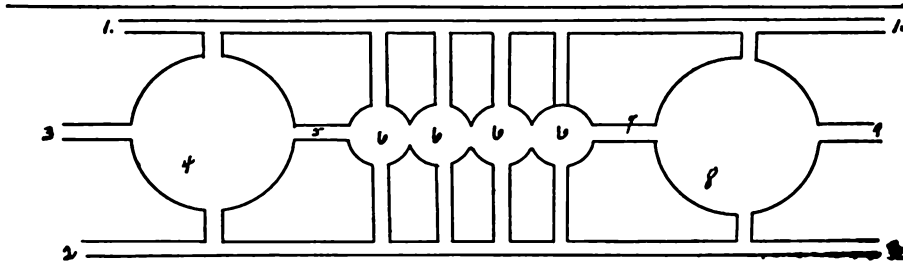
Thus we find three circulations which are or were thoroughly established till the advent of Chiropractic—the air circulation previous to the history of Harvey; the blood circulation and the lymphatic circulation since the time of Harvey. Chiropractic advocates two further circulations and gives sufficient scientific data, reasonings, and logical deductions upon which to firmly establish, in our minds, their existence. I refer now to the first, that of mental impulses, through nerves, beginning with mind, at the brain cell, through the efferent nerve, reaching the tissue cell; beginning there with its impression, transmission is through the afferent nerve back to brain cell, to the mind. This becomes distinct and was not known heretofore. I do not know what date or what year to say this idea was conceived, an idea sufficiently concrete to name it, but its first introduction to public audience was in the year 1905, in which a public lecture was given in a country town in Iowa, wherein the author forgot the character of his audience and floated in rhapsodies, eventually giving the lecture from which Cycles is the product. Cycles, then, is the philosophy and scientific data upon which is based this circulation through nerves.



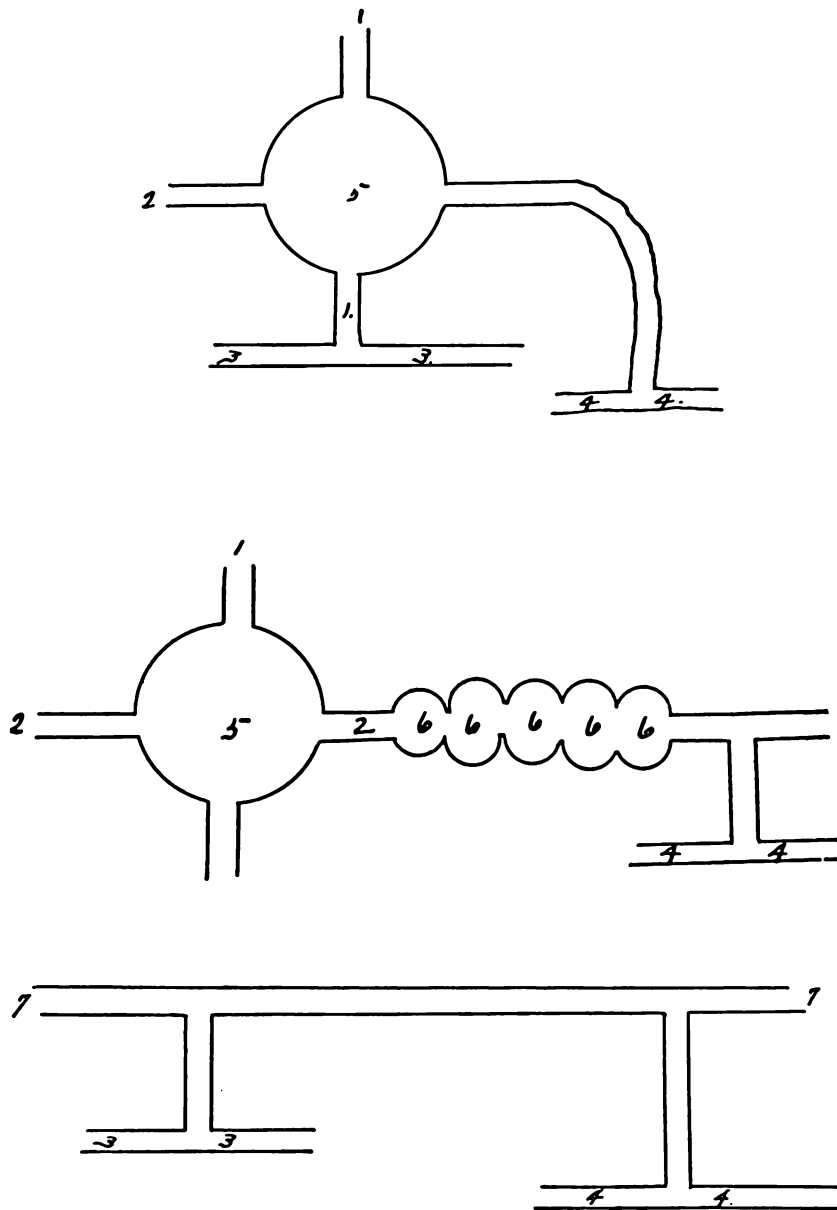
Schematic drawing to illustrate the different divisions in different circulations. Intercellular circulation space marked "A"; intracellular circulation space marked "B"; arterial and venous circulation space marked "C"; nerve circulation space marked "D." Serum passing through "A" feeds "B," "C" and "D." Oxygen passing through "C" reaches every tissue cell. Mental impulses passing through "D" reach every other tissue cell also. Serum is through osmosis, blood through rapid tubular transmission, mental like electricity.

At about the same time, or possibly later, ideas began to assume form from which serous circulation became a fact. It is the serous circulation that I intended to more thoroughly elaborate upon here.

First, let me correct erroneous impressions, that might be, as to the possibility of serous circulation being confused with lymphatic circulation. The two are not one, nor can one be fused or confused with the other. The blood has its transmission through arteries and veins. The cyclic circulation has its origin through the brain, and then through nerves; serous circulation through complete and unquestioned inter- and intra-cellular structures. It might be more definitely called a canalicular structure from beginning to end.

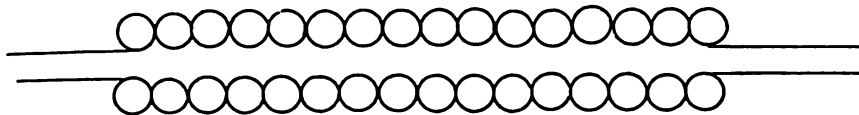


Schematic drawing to illustrate how lymphatic glands act as an intermediary between one gland and another to add to and purify substances between blood and serous circulations. 1, efferent or arterial supply to glands; 2, afferent or venous supply from glands; 3, urea in efferent circulation-intercellular; 4, gland making an internal secretion of urea, etc.; 5, excrescence from glands on way to lymphatics; 6-6, lymphatic glands, purifying and adding that from which other substances will be made in 8; 7, intercellular circulation between lymphatic glands and primary glands; 8, primary glands in which an acid or alkali is to be made; 9, the process may again be repeated.

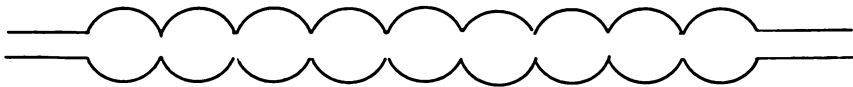


Three schematic drawings to illustrate the intercommunications between 3 primary systems—serous, lymphatic and blood. 1-1, intercellular serous circulation; 2-2, intracellular serous circulation; 3-3, arterial blood circulation; 4-4, venous blood circulation; 5, any gland in the body; 6-6, lymphatic glands; 7-7, main flow of serum on efferent half.

Up to a few years ago the idea of there being an inter- and intra-cellular canalicular system was a question, and yet some of our most eminent German scientists have now stated that such is a fact, and in some of their latest works, particularly within the last few years, they have gone into detail in outlining the paths of this system. If it be true that there is this system, different, distinct and opposed to all other systems and that it is an addition to other known anatomical facts as enumerated by standard anatomists, then we have reason to believe that here is a possibility for the transmission of a new circulation which was not known up to recent years, establishing the fact, at least, that all anatomy was not known, that there were possibilities for discovering new things, new additions to old conditions, new interpretations upon things supposed to be sealed.



Schematic drawing to illustrate the *intercellular* circulation. The external walls of cells form the canal.



Schematic drawing to illustrate the *intercellular* circulation. The internal walls of cells form the canal.

A recent newspaper clipping contains a good likeness of "Dr. Samuel L. Smeltzer, eminent physiologist," and says: "Nearly 300 years ago Dr. William Harvey discovered the circulation of the blood. That did not increase the circulation to any extent, but it was a discovery of paramount importance to surgery and physiology. Now another physician, Dr. Samuel L. Meltzer, head of the department of physiology and pharmacology in the Rockefeller Institute for Medical Research in New York, announces that he has demonstrated that in the animal body there is another system of circulation hitherto undiscovered which distributes fluids through the entire body independently of the heart, arteries and veins, 'especially through the peripheral parts.' According to Dr. Meltzer, tetanus or lockjaw is introduced not through the blood, but through this other system of circulation. Dr. Meltzer is a native of Russia, but has passed all his professional life in New York. It is claimed that his discovery is of very high importance."

Perhaps you want the organic basis of the serous circulation, and I refer you to the glandular system of the human body. Glands secrete and excrete fluids, and yet it is most astonishing to

know that while they comprise one of the most essential parts of our body, they are one of the least understood formations within it. Less is known about glands, what they do, how they do it, where they receive secretion, how they perform excretion, where the secretions come from or go to, than any other composition of man. Bones, muscles, ligaments, and cartilages are thoroughly understood, and yet glands and that great controlling system of the brain and spinal cord are two of the least understood. Consequently, those become the playground for a student searching for a conclusion of what these are, what they do, why they do it, or of what essential value they are. It is not known anatomically and physiologically, and we must assume those two bases as the primary for the serous circulation, that all glands have an intercommunicating system in the body. All glands are intimately associated in their work. There is no one gland but what is directly or indirectly connected by a canalicular system with all glands in that body. Each issues its own product directly or indirectly to some other gland, performs a duty and throws its offal to some other gland, which reworks the waste to a utilizable end. To appreciate this, we must get to a concrete example.

I refer to the stockyards system, wherein for years the only material available was beef, the meat for which they killed the animal, yet in a few years competition became close and to make a profit from beef it became necessary to utilize the bone. Eventually blood was utilized, then hoofs were ground and glue made from them. Today there is no profit in meat, but profit lies in what used to be refuse.

Serous Circulation—An Outline

In the seventeenth century, I believe, Harvey discovered blood circulation. Harvey was the King's Physician, of "whom there was no better in all of England." He dared to think, and he died in the gutter. He could not believe that a series of tubes in man carried air, although that is what authorities said, for whenever he cut a tube, a red fluid flowed in spurts. If that were true there was a pump, and he traced the tube until he found the heart; he cut the heart and found four parts. He saw the aorta and the vena cava and established, in his mind, the blood circulation; and when he had done that, he stopped. Only now and then you find men who think differently than the world. Harvey had done as much as he could, while from that on physicians believed what he believed, taught what he taught, with no practical improvement except to encumber it with theories.

Before Harvey thought, others believed that life flowed through those tubes in the form of air; when air was present, man was alive; when the man was dead there was no air. But, that had failed to cure patients. When Harvey came with his idea of blood circulation, it was the haven of refuge, and every physician grabbed it—after Harvey was dead. Then they began covering his idea with theories. One was, blood was the life of the body; blood heated the body, nourishment went through blood, blood was life—and so they burdened man. If blood circulated, man lived; when it did not, he was dead. If blood circulated, the body was warm; if it did not, he was cold. If the blood circulated the body was nourished; if it did not, the body was impoverished.

For two hundred years, at least, they have been living these theories. Fifty years ago somebody found nerves in the body, and they began reaching forth the theory that there was nervous force in nerves, the physician fought it as they did Harvey—when compelled to.

I can remember, about twenty years ago, they told us to take Ayer's Sarsaparilla to clean out our blood in the spring and purify it in the fall—twice a year. Now the nerve idea predominates, and we have at last reached the conclusion that there is a circulation going through nerves that starts from the brain, works out to the tissue cell, and is carried back through the afferent half to the brain, and so goes this flow of force through matter. We cannot say "brain circulation," "nerve circulation," "tissue cell circulation," "electrical circulation," because none expresses the thought. To say "mental impulse circulation" does not express brain, nerves and cells. Consequently, we do not know but we think, "Cycles," involves every brain, nerve, tissue cell and current that goes through it.

We found in watching the action of the cyclic current that whenever this flowed the body was warm, when it did not the

body was cold. For instance, here is a man with a fourth dorsal subluxation, producing pressure upon the nerve on the right side, none on the left; the right arm is cold, left arm is warm. Adjust the subluxation, throw it to the left; the left arm gets cold and the right arm warm. We adjust it in a manner to produce no pressure upon either, and both arms get natural. In these experiments the heart beat, pulse, and blood pressure were equal in both arms; the amount of blood, rapidity of beat, speed and force, were the same whether the arm was hot or cold.

The methods of testing the blood flow consist of testing its strength, the rapidity of beat, and that is all we "need to know." But, whether the arm was hot or cold, the strength and rapidity of beat were the same. This brought forth the idea that blood flow had nothing to do with the beat of the arm. We tried that with the legs and other parts of the body, and the same thing held good. We studied hemiplegia, where a part was illy nourished. We found that blood strength, blood rapidity of beat of the partially nourished was identical to that of the part normal. Then we examined a fat woman, and the rapidity and strength of beat were no greater nor less than that of the average normal person. Consequently, it did not overproduce nourishment because the beat was greater in strength or rapidity. This brought to mind that blood had nothing to do with the nourishment of the body. We found instances where the heart had beats hours after death, and other instances where the heart had stopped beating hours before he died. All of which reached the conclusion that life did not go through blood.

We had disproven all the substantial theories of the medical man, on his blood idea, and where were we? We found, however, that when the flow of mental impulses through nerves was completely cut off, death was the instant result; if life flowed through nerves, that, when life stopped flowing through them, it took the heart a certain period of time to lose its impetus or momentum.

These experiments were most prominent in people who died more or less suddenly rather than the man who wasted away, because in dying gradually momentum dies in ratio. The man who dies suddenly by a shock, may be dead so far as life is concerned, but his blood flow, nutrition and body heat continues and dies under a lack of momentum.

This brought us to the conclusion that blood did not carry life, heat the body, or nourish the body; it didn't do the many things medical men said it did. What does it do? We reasoned along the lines of common sense, in which we admitted the anatomical facts. After completing the systematic circulation, it enters the pulmonary circulation, in the lungs. From the lungs, it goes back to the heart to be pumped out through the system. Here is where your circulation is dual—systematic and pulmonary. The object of pumping it into the system was to liberate that which was picked up by the lungs. And what is the object of pumping it back into the lungs? To pump into it the something needed by the system.

Let us analyze the lungs. They are a mass of cellular structure divided into small air-tight lobules or tubes. Into these tubes goes oxygen. The oxygen reaches the pulmonary blood by means of absorption and it is carried by the pulmonary arterial circulation to the heart, and from there to all parts of the body.

As a last analysis, the only thing that blood does is to carry oxygen to and carbon dioxide from the tissue cell. You gather this oxygen in the lungs, pump it into the heart, the heart pumps it into the system, the system transforms oxygen into carbon dioxide, then the venal circulation takes up carbon dioxide and carries it back to the heart, the heart pumps the carbon dioxide into the lungs, and the lungs exude it.

While we have met the argument of what oxygenates the body, that nerves carry impulses which perform the duty of combustion with this oxygen carried by the blood, and this combustion produces heat; we still had to meet the issue of what *nourished* the body. We went into physiology and anatomy, found there were many canicular systems of tubes for which there was no known purpose. We had two glands, a thyroid and a thymus, and we did not know why. We could not find why our Maker put them there. We had a spleen, an appendix, but the surgeon says we are better without them. It was a crime to have an appendix inside. There were many glands for which science knew no function. They classified those under a common head, and called them "ductless." Ductless means "without a duct," the same as "painless" means "without pain." Any man that dislocates, fractures or subluxates a bone, and says he does not have pain is lying; any man who sets a subluxation, dislocation, or fracture, and does it naturally "without pain" is lying, because it is impossible. The physician and physiologist say, we have glands without ducts, which is a contradiction.

"Gland" implies something that secretes. That which continues to secrete and does not excrete will burst. The physician says of these glands, they are secretors but do not excrete, for they are "ductless." A peculiar state of affairs. It would be foolish to put a gland in a body if it did not secrete, and if it does, it must excrete. If it excretes, it must have either one or many excretory ducts; and if it has an excretory duct, there is a place to which this goes; and if it goes some place, it must have a reason; and if it has a reason, it must carry this secretion for a purpose. What were these?

I found by using reason and common sense, that all glands, ductless or not—and all are with ducts—are continuous, in a chain-like arrangement, are continuous in location; that there is a canicular tube system that connects and interconnects every gland with every other gland in the body. These are all connected, they absorb, secrete and utilize. Sooner or later it was proven that there was an intermediate chain system between large glands, such as the pineal, thyroids, thymus, liver, spleen, and spermatric glands,

etc. These are all connected by an intercommunicating system, known as lymphatic glands, and these acted as a common chain, or connection, between the large glands and your flow of blood arterial and venous. So, when this interpretation of blood and lymphatic circulation, was understood the study of two-thirds was plain.

The Serous Circulation was the third step. No physician will maintain—who understands—that lymph is serum and that serum is lymph. They are two different compositions in a body. "Serous Circulation" implies the flow of natural serum throughout the body in contradistinction to lymph of the lymphatic circulation.

Serous Circulation makes and unmakes secretions and excretions. What I mean is: There are acids and alkalies made from the excrescences of other glands. These glands secrete and excrete, communicate and intercommunicate amongst themselves. The excretion from the liver, known as bile, gets into the small intestine. There transformed with alkalies and acids of foods, and with the alkalies of the secretions of the alimentary tract, is carried to other glands where it helps to make other secretions and excretions, so that, other things being equal, my opinion is that it makes very little difference what you put into your mouth, Innate will take and make out of it what she needs.

In the study of Serous Circulation from a nutritional standpoint, it is not what goes into your mouth that nourishes your body, it is what comes out of it. Follow your appetite and you will eat what is called for, and we call for things we need Innately.

Serous Circulation is like a Cycle; I don't know where to say, "Here it starts and there it ends." Every gland is doing its particular work, which work bears a common relationship to the work of every other gland.

Were you to ask for all the circulations of a gland, I would say (1) the afferent and efferent of the nerve, (2) the afferent and efferent of blood, (3) the afferent and efferent of lymph, (4) the afferent and efferent of the intercanalicular system of serum, (5) the intracanalicular system of urea and its internal function.

If it were not for life, matter would be dead; there would be no beat; no circulation of oxygen and carbon; no nutrition of a body. Life is all essential to the working of matter, and life in matter comes through circulation of Cycles. The important thing about man was the last that man stumbled on to.

The circulations, then, of man, as they stand today, are blood, lymph, serum and cycles—four in number. To whom to give credit for the blood circulation, we know; to whom to give credit for the lymphatic circulation, I do not know; I do know who has "sweat blood" for the other two.

Is the Gasoline Engine a Counterfeit?

What is a gasoline engine? One thing necessary is gasoline. Second, a storage battery. Third, somewhere between the gasoline and the engine, a carbureter. Gasoline is a liquid. So long as the liquid remains, nothing can burn it. Drop a lighted match in a barrel of gasoline and it won't explode so long as it remains a fluid, but so fast as that gasoline becomes a gas, so fast does it burn. It becomes necessary to transform the gasoline into gas. To do that we let the gasoline run from the gasoline tank to the carbureter through a pipe. There an intake pipe takes in oxygen, and by mixing oxygen with gasoline makes a gasoline gas. The gasoline gas goes by a pipe to the head of the engine in a gaseous form. On our right are storage batteries. It is immaterial whether you make it by the movements of an engine itself or by storage batteries, the fact is, you have electricity. We have two wires, one carrying electricity from the storage battery and the other carrying back the negative current, and they go to plugs at the head of your engine and there make a jump spark. The spark coming down the positive wire jumps over to the negative wire.

The process working simultaneously is this. Your gas is deposited. Along comes a spark of electricity and ignites the gas. The gas being enclosed within a receptacle, explosion takes place. Just below that engine is a cylinder head which is driven backward. Thus it is a process followed by series of explosions that produces motion which moves that axle and which consequently moves the wheels and your wheels run on the surface, or if you have not wheels like the automobile, you perhaps have a belt wheel and that belt moves machinery through your factory.

There is the simplicity of the principle. You notice primarily, then, several things in gasoline engines. One is a circulation of gasoline, the circulation of air, the circulation of electrical currents. Gasoline is converted into gas. Oxygen is converted to carbon dioxide and positive electricity is exchanged to negative current and your engine moves. We have in addition another circulation with this engine—water. The water keeps the engine cool, for by this process of moving regardless of how well oiled, friction takes place, and friction means heat, consequently it is necessary to have water circulating around this engine to keep it cool. There are four circulations. Gasoline, air, electricity and water. It is possible to have an air-cooled engine, but even then you cool your engine by the moisture of the water contained in air, so the principle remains the same.

What are the five circulations of man? Blood, serous, lymphatic, air, mental impulses. I said I was going to talk about gasoline engines. Man is a living, moving gasoline engine. Nothing else. A gasoline engine is nothing but a duplicature of things existing already in man. Man doesn't copy his existence from the automobile, the automobile is copied from man. Every mechanical movement

was copied from man. There are only three hundred and ten movements in science, and they are all duplicatures of man. There isn't a patent at Washington, D. C., but what has its greater counterpart in man.

We will carry out the idea of man's gasoline engine and take a tissue cell as the fundamental. Serous fluid is gasoline. Blood circulation carries oxygen and carbon dioxide. Nervous system carries electricity through a positive and back through negative wires.

That tissue cell can't explode, cause movement, nor get a personification of heat without it gets certain equivalents. One of these is gasoline, and the gasoline goes down in the onward passage as serum, passes through that tissue cell, and passes out as urea. This circulation starts at your intestine and ends at the kidneys. Gasoline enters as serum and passes out a urea, showing that there has been a transformation, but before that serum gets into that tissue cell it must go through a carburetor. In the gasoline engine man makes the carburetor separate and apart from the tissue cell. Here we make it at the place we use it—the tissue cell. We will take the blood circulation, carry it through the tissue cell also. It is arterial blood on the outside of a tissue cell and venous blood on the other side, showing that there is a transformation from arterial blood to venous blood taking place within the walls of the tissue cell.

The process that took place is the exudation of serum first; the transformation of that serum or gasoline into gasoline gas; an explosion takes place; that gasoline goes as a liquid refuse called urea. That goes through the onward portion of the serous circulation. The arterial blood changes because the difference is, one has oxygen and the other has carbon dioxide.

There are still other things necessary. This process is simultaneous and is the only machine that can perform simultaneous actions. That is, at the same time the serum is being converted to gasoline gas, a spark or mental impulse reaches the tissue cell and causes an explosion. As a consequence we get several attributes known as motion, heat, etc.

As a result, we find there are three refuses, three excretions. One is urea. The other is carbon dioxide, and the other is the negative current. The beginning points of these circulations are: Your mental currents at the brain, ending at tissue cell. Serous circulation, intestines to cell; cell to kidneys. Blood circulation, lungs to heart; heart to cell; cell to heart and heart to lungs. So that the beginning and ending points of venous or arterial circulation arises at the lungs in contradistinction to the idea that the heart is the beginning. The heart is the pump and is between the tissue cell and lungs.

You ask, what about the circulation of air? The blood transports the air circulation just the same as a river transports boats; just as fish swim in the river. The boat swims on the river's surface; sometimes sinks into it; sometimes floats underneath. The

same is true of the serous circulation, of the mental circulation wherein electricity is not a part of the nerve, but it goes through or over the surface, whichever argument you wish to advance.

You ask, granting this is a practical fact, what part does the lymphatic circulation play? The lymphatics have to do with the making of materials out of refuses which go to or help to make the chemicals which are to be a fluid as a by-product. For instance, bile. Bile is made by an action of the liver upon chemicals received by it. The serum which goes to the liver helps to nurture the liver itself and has nothing to do with the making of bile. The blood going to the liver has nothing to do with the nurturing of that liver, but carries to it the oxygen and takes away from it carbon dioxide, which is to help keep the liver warm and in motion. The mental current has nothing to do with the nurturing of the liver nor any cell in its structure. It carries currents which cause the action to take place. But the liver retains an internal function that it performs, which is the making of bile. The tissue cell structure of that liver is nurtured and receives sustenance and is held up to normal shape and form, by serous circulation. At the same time you have oxygen carried to and carbon taken away from it. Then you have mental currents going to it; but notwithstanding all those functions, which might be called external, it has a function distinctly internal—bile. Bile is carried from the inside of the gland to the intestines, and helps to perform the function of digestion. That bile in any other portion of the body would be a poison. Take that bile, put it in the mouth, the stomach, the arm, and it is poisonous. That is why jaundice is poison physically, because it is carried from one place where it was not a poison to another place where it is, in the same body. Bile is a poison made of poisons from other portions of the body. Man is a very intricate intercommunicating system. Don't understand me to say that serum, after it has been utilized and known as a liver urea, goes directly to the kidneys and is thrown out. That goes to a lymphatic gland. The lymphatic gland takes something out of it, makes use of it; it then goes to another gland, which makes use of some of that material. So it is a process of another lymphatic gland working upon what was an excrescence to a gland higher up in the same system.

The lymphatics then are purely an intermediate system wherein the refuses from over the body are gathered and utilized to an end of taking from them some consistency which is of value in helping to sustain the glandular system in its work of internal function of secreting a fluid. Bile, splenic fluid, thyroid juice, are products of excrescences of other portions of the body. Man is the most economical machine made. What is excrescence in one place is utilized in another until finally, when it reaches the kidneys, there is no more use for it. Then, and not until then, does it become an excrescence, because various portions of the body have mauled over it until nothing more can be extracted. There is no nurturing value in urine. It would pay no one to drink his urine, from a nurturing standpoint. That is why, when M. D.'s want to get a person's

kidneys to acting, they tell him to drink *his own* urine. It goes through rapidly. Innate realizes we have had this once before. That is the principle they work on, and in taking that it is supposed to take some of other with it. Thus you see its non-value.

To recapitulate: We have five circulations in man. 1. All blood circulation does is to carry oxygen from the lungs to the heart and from the heart pump it out through the arterial systems through all the portions of the body; to carry oxygen to oxygenate the tissue cells. The venous circulation has to do with the reception or receiving of carbon dioxide; carry it to the heart; from there to the lungs, and there expel it. The heart is but a pumping station divided into four parts; two parts pumping blood to the two parts of the lung and the two parts of the heart pull it back from the lungs. 2. The serous circulation begins at the small intestines. There it absorbs serum and ends at the kidneys, meanwhile going into and becoming a part of every structure of your body. 3. The lymphatic circulation is an intermediate, a discrimination takes place between what your serous circulation accepts and what the lymphatic circulation delivers. The lymphatic circulation accepts only that substance from glands which becomes a refuse to the serous circulation. The serous circulation accepts those substances from intestines that are nutritive. The lymphatic only such materials as would carry and produce pigmented material or would carry and make glandular juices to wherever this circulation went.

4. Your mental impulse circulation is distinctly separate and apart from any other and has to do with the immaterial half which moves through the material half. That is, could we divide these five circulations into two halves we would say the blood, serous, lymphatic and air circulations was the material half and the mental impulses was the immaterial. In point of importance, one has the same bearing as the other four, because the four would do nothing without the one. In point of relationship, the two must be together to make one total. Some people see the doughnut and others see the hole.

In this relationship the serous circulation and mental impulse circulations are new. Harvey was noted for discovery of blood. The *P. S. C.* is going to be noted for its discovery of serous and mental impulse circulations and the new interpretations upon the circulation of blood and lymphatic systems. By process of analysis we take away functions and give them to others.

We now place a new interpretation upon lymphatic circulation, because there is no one physiological function that so little is known about in physiology as that.

You can study page after page on lymphatic circulations and you will get no understanding of what the author has said or meant; he usually does not mean much because he didn't understand much himself. So in this relationship you are getting the essentials of the circulations of man.

If you would study these from relative viewpoints, you would comprehend better what they are and get essentials of value.

The Meric System

Mere means boundary. The Meric System consists of the horizontal or oblique irregular segments into which the human or animal body is theoretically divided for clinical and analytical convenience. Each segment includes a vertebra, its attendant pair of nerves and other organical structures common and special to each. The nerves in each mere emanate above the vertebra in the same zone, the tissues mentioned being supplied with currents through this pair of nerves. These tissues include osseous, muscular, visceral, cutaneous structures, special organs and glands.

A simile which may illustrate the way in which these zones are superimposed is the layer-cake illustration.

To get a clear understanding of the Meric System the student must understand its evolution. Take the earlier vertebrate such as fish. With some fish the body may be dissected to show the Meric System quite accurately by making a transverse section through the plane of each intercostal space and including one vertebra in each layer. These planes are curved slightly but quite regular in outline and very similar throughout the body.

As the vertebrate animal developed and became more complex the various zones began infolding, one upon the other, and curving still more, becoming more and more irregular until in the higher and quadruped vertebrata we find very little approach to the plane anywhere in the configuration of the zones. Still the quadruped shows this better than man. At the shoulder, thigh and extremities, for instance, you will find that the quadruped could be divided by sections at right angles to his spinal column and, with the exception that some of the zones would taper to a wedge shape, the vertical lines of section would delineate exactly the tissues supplied with currents through the nerves in that zone and include the vertebra whose subluxation causes disease there.

When man began to walk erect and his limbs changed position so as to be approximately parallel to the axis of the spinal column the zones took on a more oblique or more nearly parallel relation to the spine. Yet the order of the zones still corresponds to the order of the spinal segments. With few exceptions the higher tissues, as man stands erect, get their currents from the higher pairs of nerves and are controlled through the higher vertebræ. The exceptions are due to infolding and developmental changes in the zones.

Certain sub-meres are recognized as follows:

- (a) Vertemere, that part of a zone occupied by a vertebra.
- (b) Neuromere, that part of a zone occupied by a pair of spinal nerves and their spreading fibres. All the nerves-substance in a given zone. Thus 22nd neuromere, means all nerve or spinal-cord tissue in the 22nd zone.

- (c) Ossemere, all the osseous tissue in a zone, including the vertebra.
- (d) Viscemere, the special organ or viscus (organs or viscera) in a zone.
- (e) Myomere, all the muscular tissue, but especially the various individual muscles in a given zone.
- (f) Dermamere, for convenience includes not only the skin in a zone, but the fascia immediately beneath.

The integrity of the functions performed in c, d, e, and f, depends entirely upon the proper position of a in relation to other vertebræ, and the absence of any constricting force interfering with the transmission of currents through b.

Thus the human body may be said to be composed of twenty-five segments, each segment being a unit so far as disease is concerned. This is true of the purely local disease or that condition which is a combination of local diseases, e. g., sciatic rheumatism or typhoid-pneumonia, with the exception of the general excessive heat which follows the two local diseases. There are some organs in the body whose function is so important that disease, interfering with these functions, makes it impossible for the other zones to act in a normal manner. One of these is the kidneys, abnormality of which is likely to affect every zone in the body, the degree to which they are affected being determined by the absence or amount of pressure on nerves in each. In general, however, each segment may be taken as a unit, a secondary consideration being the fact that every function in man is to a certain extent interdependent upon all others.

It has been found convenient to discard the use of the terms Cervical, Dorsal and Lumbar in speaking of the zones, although these terms are still used with numbers to designate vertebræ, and to number the zones from above downward from 1 to 26, beginning with the atlas and first pair of nerves and ending with the coccyx and last pair. While there are five pairs of sacral nerves, all are considered, with the sacrum, as one zone, because they do not emerge from movable foramina and the sacrum in the adult is one vertebral unit.

This method of numbering is most convenient because the only tissues in a zone which could be classified under Cervical, Dorsal and Lumbar are the vertebræ themselves, while with the use of the numbers all bodily structures may be included.

The following table for handy reference shows all of the most important tissues in each zone without attempting to name all the muscles, glands, or smaller structures. Its purpose is to fix in the mind of the student the outlines and scope of the various zones, after which he will be able easily to locate any given structure in its proper zone by its position in the body and its association with other structures. It must be remembered that no such table can be always exact any more than an anatomy can be exact, since dissection has shown that no human body is without *some* variations from the accepted normal standard. In the nervous system this variation is greatest in different individuals and, therefore, since

the division into zones is based entirely upon the distribution of nerves, the table can be taken only as indicating the *usual* or *commonest* divisions. Every analysis must be made specific. The commonest deviations from this table are merely associations of peripheral tissues with the vertebra above or below the one named in the table. Some of the cases in which deviations are very frequent or in which an organ belongs usually in several zones in the same subject, carry indications of the same in the fact that two or three vertebræ are mentioned in connection with the organ named or the organ is included in several different zones.

Value of Meric System.

It will be readily seen that with a complete knowledge of the Meric System it is only necessary for the analyst to compositely locate a disease in a certain tissue to determine approximately its cause. Upon the knowledge of the location of the effect he can build a working hypothesis including a cause in the spine and then verify that hypothesis by the remainder of his analysis. The chief use of Symptomatology to the trained Chiropractor is thus in *locating* disease.

Its Place in an Analysis.

From the time when certain subluxations of vertebræ have been recorded, the mind of the examiner should picture in the body these zones indicated on his palpation record. He should be able to give the outlines of each zone and the subluxation should suggest to him the entire zone. His nerve-tracing then will serve to picture further in his mind the zone diseased and finally his observation of physical signs should be principally confined to the zones in which subluxations are found. This habit of forming the mental picture of an entire diseased zone and then narrowing the limits of the picture by excluding those parts in which examination results negatively, is an invaluable one. It is possible to do this, assuming a positive basis and then working by exclusion, because the subluxation is always *positive* evidence of the existence of disease. This disease might be so minute that it is not worth consideration—that must be determined by further examination. It might be well to further qualify the above statement by adding that *some* degree of misalignment of process may occur without causing pressure on nerves. It is best, however, to assume for the moment that *all* subluxations produce disease and proceed to disprove it in certain instances than to take the opposite method.

THE MERIC SYSTEM.

The Meric System is little understood by many students. Before taking up the detail of the system I shall ask you to retrospect with me and study the evolution of the system. The only way in which you can get down to a true understanding of the exact nature of anything today is to study its ancestry and watch it through the formative periods and by reasoning from cause to effect, get a clearer knowledge of effects or the final as it exists today, just

as when I saw this disease, *chiropractically*. You are enabled to understand what I mean: viz., to understand *the cause* of the disease. In studying the Meric System we will have difficulty unless you can get back to cause and watch its growth.

In the beginning a portion of the principle of Chiropractic was discovered—that an adjustment of a vertebra had an effect, that it was followed by a “cure of deafness.” Working out that principle, it was found that the adjustment of prominent vertebræ which appeared to be subluxated in the spine was followed by obliteration of various diseases. At that time every prominent vertebra was adjusted to produce the same and every disease disappeared provided the prominent vertebræ happened to be noted correctly and easily and the adjuster was aware of the particular difficulty. At that time there were given general adjustments and the incoördinations accordingly and obligingly disappeared; however, that wasn’t done with the degree of accuracy and understanding which we apply today to anything which we accomplish. We like to know how we accomplish anything and what we have evidently accomplished; we like to know the genesis of every fact and every act and so it was with the investigators of the system of Chiropractic.

They first noted that adjustment of prominent vertebræ was followed by relief in a general way and then they noticed that adjustment of vertebræ in different sections of the body was followed by different effects, and then they reasoned from that that there was some definite connection. This lay in the fact that certain nerves usually or ordinarily had their exit from certain fixed points in the spine and reached to certain tissues; that is, that they had definite origins and definite locations. At that time the spine was divided into certain sections known as M. C. P.—S. P.—K. P.—etc., and several years later the spine was divided into divisions, each section of which involved about three vertebræ, and it was known and understood, in a general way, that adjustments at one of the vertebræ, say at K. P., usually did affect the kidneys. That was a trifle more definite; a little more specific, and for a long time that was the extent of the knowledge of Chiropractic or Chiropractors concerning the work they were doing.

It was observed, however, later on, that a *certain* vertebra within one of these Chiropractic regions, for instance, a certain vertebra at Lu. P., when subluxated a little differently, had a different effect in one case, than another below would have. Nerve tracing was the outgrowth. That is, the tracing of a definite nerve from a point of emergence from the spine to a point at periphery, or to the ending point in certain tissues in some part of the body. They found that one followed a certain path. It was found that, while these nerves didn’t always follow the same path, they did generally and they could be found by nerve tracing, and therefore specific ideas, locations, etc., could be made. Specific analysis could be made in any specific case as to the exact cause which produced an exact effect. Even then, however, half of the investigators differed in their degree of accurateness and in their ways of arriving

at their conclusions, and to that extent was so much imperfect work done. The theory was absolutely right, but the work done in pursuance of that theory was handled so that errors crept in—errors in the connection of cause and effect, which must necessarily be followed by errors in results. If the analysis and the adjustment be absolutely correct, and absolutely scientific in every case, the results are positively assured except in cases where the disease has gone so far and the effects are so great that the patient must die. In 95 per cent of the cases, if the adjustment is absolutely all right, the patient will unquestionably recover and recover perfectly. The failures that exist in Chiropractic today are due to a failure to work out particularly that underlying element of the connection of the specific cause with the specific effect.

Finally, the idea was conceived of working out a plan—the ground plan of the structure of the human body which should always be approximately correct and which should materially aid every student in the location, in his own mind, of the connection between cause and effect.

The means by which we arrived at these conclusions were first, nerve tracing; second, specific adjustment of vertebræ and the results witnessed; third, our knowledge of the development of man, the man of embryological maturity; and of the way in which the body was constructed. I will not attempt to go into the additional details of the various points that had bearing in the evolution of the Meric System.

The earth is composed of strata of matter different in their consistency. On the surface, a layer of soil—a layer of black earth and beneath that a layer of clay and lower yet a layer of porous rock or a layer of gravel, and then following that will be a layer of more dense rock. These layers continue down into the depths of the earth many, many miles.

Certain classes of men have compiled this data so frequently that they can tell just what combination contains crude petroleum, just what changes will produce a mineral water, etc. How deep you must go, under different conditions, is also estimated by the known facts. No man can crawl into the bowels of the earth, run through the strata, find out where the oil or water is, come up and report. He must estimate the unknown by the known.

So no man with his brain, eye, or hands, can enter the strata of another man and find what he wants; therefore we must estimate the unknown by an accurate system of the known.

You know that the earth's layers are all concentric, and suppose them to be locally symmetrical and that these layers be of exact thickness throughout, having no deviation; each layer then, if it were removed, would make a whole sphere—concentric rings around the center, each of these representing a stratum of matter of particular consistency. The internal forces of the earth and forces of the Universal Intelligence have acted upon those various strata and substances of which the earth is composed, so that they have been thrown together and flattened here and enlarged there, etc.

Wherever there is a depression there must be a corresponding bulging or density of matter and there are the earthquakes which would make impressions, and you can picture the water cutting channels through and dropping down under and finding softer conditions and then working out perhaps a subterranean passage. All these things plus time have brought about a great change in the structure of the earth so that while they exist today, not one of them exists as a perfectly regular layer, having the same density throughout from the center—they overlap and at other times they will be reasonably level and just continue gradually in their undulations. And the undulations of all the others will be even, so it will be fluctuatingly of an approximate thickness for miles and miles, perhaps. What I want to picture in our minds is the condition of the earth and the way in which, while these various strata maintain their identity, there will be a sheath or a merging and blending of one stratum into another, and while there is finally an intermingling with all the rest, they still maintain their identity as part of a strata of the earth's composition.

Man, as he is in the embryonic stage, may be likened to the earth as I first pictured it. He is composed of tissues which have regular rhythmical arrangement without variation to any great extent, without any great interblending, likened to the level and regular strata of the earth. A little later on, as the development became more complex, these strata began to overlap, still maintaining their identity as various strata, part blending into the other, to make a complete organism. In the embryonic development of man the spinal cord has a definite relation to the various segments of the body and we have the nerves which branch out in the definite functions—effects and relation to certain parts of the body as they develop. At first this mass lies in such a way that the connection is all very direct; that is, there will be a certain part of the spine and certain vertebræ and certain nerves pass out, that will be in certain direct communication with a certain place.

The communication is with the zone which lies nearest to them. As the organism changes its shape and the various parts begin to fold one upon the other, the body matures and certain functions are used in greater quantities, certain portions develop more rapidly than others. Some of them become more complex and take on the function and structure of special organs; that of muscles, of bones, and the relationship is somewhat changed. Yet, even in the adult, the perfectly formed man, the same division into successive strata or layers is stable, and it is these divisions or this division that we have untangled in *The Meric System*. We want to understand man—the formation of the division of man into the superimposed zones and the changes in their relative complexity and composition. Imagine man in the beginning as taking the position of a quadruped, a four-footed animal with his hands on the floor and his legs extending downward from his body like the horse, for instance; his spine divided into segments anterior

to each other according to the vertebræ, and the nerves coming out which spread into certain anterior and posterior zones of the body. You can get there, the division of man into particular definite zones, the one anterior to the other in that position.

Imagine this man standing erect and imagine the change which would run to the head one above the other—the head occupying a different position now so that the spinal cord runs upward and forward. Those which are back of the neck will run forward through the tissues of the neck. The nerves coming out, for instance, from the upper dorsal, will run forward, outward and downward into the arms as the arms are dropped down by the force of gravity beside the body instead of at or in front of the body as in the four-footed animal. The vertebral segments of the human corresponding to the legs or the lower limbs of the animal as he stands erect are now passing downward in a different way; that is, the angle is widened out and instead of being at right angles it is then describing more of an obtuse angle. That accounts for the changes in variations in the various zones.

Again, the internal viscera in their development, show a fluctuation in interblending. It is in the dorsal region that the greatest variation takes place. We find certain muscles and certain nerves divided off for certain functions, and we find the nerves still maintaining their nerve creation from the brain just as they did in the beginning. So much for the basis in which this Meric System is divided.

A Mere means a zone; mere really means a boundary, but it has been taken rather loosely to mean a zone. Mere is applied Chiropractically to the human body, and when so used means one of the super-imposed layers of tissue which go to make up the human mechanism. Verto, from *vertere*, meaning “to turn,” having reference to *verte-bra*, and in its combination with mere, as in the word *vertomere*, means that portion of the spinal column which includes one of the vertebra of a certain group. The *vertomere* is bounded by a plane drawn through the middle or the center of the intervertebral cartilage above and by another plane below. It includes just one vertebra in the spine. A *vertomere* is a part of the mere zone in the body. For instance, the twelfth *vertomere* is a part of the twelfth zone or twelve of the super-imposed layers from above downward, that exist in the body.

The *vertomere* is frequently referred to as the *causative mere*—its subluxations *cause* the interference to currents.

Corresponding then, to the same principle, we have *neuromere*. The *neuromere* consists of the nerve fibres which belong to that zone which have their origin between the *vertomere* which passes out to the other parts of that zone which we mention.

The *neuromere* is the *transmission mere*, that is, it has to do with the transmission of currents from the spine to the tissue cells of the body.

The *effective* mere could be any structure outside of the actual pressure upon nerves. It might also include the vertebra or nerves themselves.

In working out the Meric System we have little reference to the Innate Intelligence above or to the fact that these nerves pass onward from the brain, because it is only at the spine and at the division or separation of nerves from the spinal column in passing out in separate sheathes from the body that we have beginning the basis of the Meric System. Above in the brain, there is also a meric system, that is, the zones correspond to the various zones or areas in the body, only differently arranged, and, therefore, for the purposes of the study we must begin in the spinal column and work out to the tissues.

The other names included in this system, names of which you must get a clear idea to understand the explanation, are Myomere, Viscemere and Osseomere.

The Myomere is or consists of the muscular structure within a zone; it may be mentioned by itself, or it may be mentioned in connection with the other parts of the zone. The reason it was given a distinct name "Myomere" was so that it could be described without having to say "the muscles in the fifth zone"—making it longer. We say "twelfth Myomere" to convey exactly the same meaning, just as we say twelfth viscemere instead of saying "the viscera or organs located in the twelfth zone. By twelfth vertemere we mean that vertebra located in the twelfth zone, which we are obliged to couple and intermingle with any of those words to give a clear comprehension of anything. Vertemere means nothing at all, because we don't know what part of the body we are talking about, but when we say the twelfth vertemere we imply, or the saying of it implies, that we are taking as a basis the division of the spine into 26 segments. You will understand that the first mere consists of the Atlas vertebra and nerves which pass out from it to the tissues which they supply; that the eleventh mere consists of the eleventh vertebra and its connecting tissues, and so on down; that is, the portion of the zone will indicate to you the portion or the vertebra involved. You know what the first zone is all right, but we don't speak of the third dorsal vertebra—vertemere, but we speak of that as the tenth vertemere, taking the whole spine into consideration as we go.

With every vertebra there is a corresponding viscemere, neuromere, etc.; that is, there are muscles, organs and bones which have direct connection with the vertebra and a connection which is reasonably constant. There is some variation or deviation here owing to the fact that the development of different individuals is not always the same—but some time since I read you an extract from an authority on Anatomy, in which he stated that there were a large number of anatomical differences occurring in various systems; that it was almost impossible to find two men that were formed alike, in which the muscles alone had exactly the same position in the body; that no less than 63 varieties or variations

from the normal muscular zones had been noted; yet that man had not one which impaired his health, that is, they followed—they varied in such a way as to allow everything to remain in its regular course—they varied, but not in such a manner as to interfere with his action. So also, in Osteopathy, one of the things most considered by them is the consideration of muscular lesions; it seems to me that they very frequently confuse anatomical conditions or differences in structure with the cause for some abnormality.

There are no fewer variations in the nerves than in the muscles. The various tissues are not exactly constant, and that is the reason that the original classification included about three vertebrae for one organ, not meaning that they all had action with that organ—connection with that organ in which or with which it was being associated—but that they all had connection with that organ in various individuals; that K. P. in one man might be tenth, and in another the eleventh, and another twelfth.

Nerve tracing in a specific case, however, can always show these differences and, in a general way, the Meric System, as I shall outline it for you, is correct; that is, it is a general rule for deviations from which you must always examine carefully your individual case and make your specific analysis.

I shall outline briefly the various paths of the nerves and the connection of the visceremes, osseomeses, myomeses, etc. The Atlas vertemere, first, is in connection with the visceremere, which includes the brain. The boundary of the atlas zone might be defined by a hat band, but that would hardly be true, because it passes a little lower than that. The boundaries pass on each side along the line of the cranium and the ear, and then upward a little more directly around to the anterior portion of the head and taking in that mere, the brain, and part of the ear and superiorally, then from the cranium and scalp, etc., to all of the tissues within that limited area, so that is the outline mere or zone. The axis has a correspondence to the atlas to a great extent, except that it is slightly lower and takes in slightly more area around the back of the neck as well. The flesh and skin—by the way, we speak of the cutaneous portion or zone as dermamere in this connection—the third cervical zone passes just a little lower than that of the axis, taking in the other third of the tissues of the neck. It sometimes passes upward into the face, but as a rule the third cervical zone is narrow, and it passes in a general way just below the axis to above or on the fourth cervical.

The fourth zone takes in the tissues of the face, the facial bones and the internal nares, and has to do with the sense of smell. The neuromere of the fourth zone sends fibres along the course of the optic nerve and around the orbit of the eye, passing upward as high as to a number of the branching bones. It extends downward occasionally into the neck as far as the hyoid bone. It includes a part of the posterior portion of the mouth and the roof of the mouth.

The fifth cervical zone takes in a layer just below that of the fourth, as a general rule, and includes a portion of the nose and especially the tissues of the neck.

Those zones, understand, overlap one another; the peripheries are usually interlocked. Remember, that every different nerve fibre is so constituted and arranged that it is a matter that is hard to identify just where they begin, because they pass on without any break and form a sort of an interlacing with all of the peripheries of the fibres from the two zones. For this reason we sometimes find that the fifth vertemere corresponds in its scope to the fourth. Again we have discovered the fact that subluxation of the fifth, or of the fourth, may bring about impingement of the nerves lying between the fifth and the fourth. We will consider the vertemere as being an intervertebral foramina on one side and, also, it contains or includes one particular vertebra, and that is all for the vertemere, of course, and the two foramina.

The Sixth Cervical vertemere passes or sends its nerves outward to the larynx and the adjacent tissues around the neck. It also supplies a part of the neck or around the Sterno-Cleido-mastoid muscles; occasionally, also, the upper part of the shoulder and sometimes the anterior part of the arm. It usually passes to half of the neck muscles and to the larynx.

The seventh zone, or zone of the seventh vertemere, is again just a little lower, taking in the shoulder muscles and lower neck muscles, and sending fibres down the arm as has been evidenced in several cases in the clinic.

The eighth zone includes the first dorsal vertemere, and again it is a little lower than the preceding one and sends its fibres down the posterior part of the arm, whereas the others pass down the anterior part of the arm. The first dorsal nerves of the eighth zone pass down the posterior portion of the arm, and then commence to separate and reach the lower and posterior shoulder muscles, some time the upper scapular muscles and the muscles around the clavicle also. Anteriorly these nerves pass around to the other portions also.

You will notice that we have omitted mention of the throat, which will come up for later consideration. There is an irregularity there.

The second dorsal zone, of course, I should have said the lower or the zone of the second—a little strip that is quite narrow, corresponds to the first dorsal vertemere, that is, there is a dermamere which passes around the upper part of the vertemere, sometimes over the neck and anterior portion of the neck, taking in a part of the sternum. It also takes in the first part of the ribs. The neuromere of ribs consists of nerves passing outward between the first and second ribs. For its osseomere, it has a second pair of ribs and a still lower part of the sternum than the first. There is a strip of skin in the region just below or in the first zone, and this viscemere is important. It is the heart, especially the upper part

of the heart. So, the ninth zone becomes an important zone, important owing to the necessity of normal heart action.

The tenth zone, lower, also, than the ninth, takes in a portion of the lungs. The third portion refers to the upper part of the sternum.

The fourth dorsal vertemere is in the eleventh vertemere; the fourth dorsal neuromere sends its fibres, usually, following around between the ribs and taking the course obliquely downward and forward. The eleventh zone is wider posteriorly, and that makes it necessary for the two zones to extend slightly downward and upward. Lower, it seems to be more on one side than on the other; instead of being in an exact line lower, it is crowded over on one side and extends downward, outward and forward. The viscemere in the eleventh zone is the liver.

In the twelfth zone we have certain unexplicable connections with the tissues of the body in general. We can locate the twelfth vertemere and we can trace the nerves of the twelfth neuromere, and you know some of the muscles which pass upward around the fifth dorsal vertebra; and over that part of the back you can trace the connection of a strip of skin passing outward from the back and disappearing in front. That is the zone, but still remains the connection between the zone and the tissues in general, which allows for the cause of the general paralysis or excessive heat at C. P.

The thirteenth zone, or sixth dorsal vertemere, has for its viscus, chiefly the stomach, but usually the stomach has connection with the part of the neuromere which comes out on the left side, while the nerves on the right side pass forward and upward to the throat and in such a way as to balance the unnatural position of the eleventh. This can be called the digestive zone, for the mouth, throat, and stomach get their neuromere from here. Definite nerve tracing is done and has shown it at throat, but we can understand why it should be. The esophagus is included in this zone, in the right half. We can be quite specific about that because we have investigated considerably along that line, and we can say that the nerves from S. P. on left include the stomach from the pylorus to the cardiac opening. The mouth is also included in this zone, and then, too, certain fibres also fuse—pass from the right side to the eyeballs—not to the optic nerve or to the eyelids, but just to the eyeballs. These fibres are from the right of S. P. and, also remember, of course, we have a portion of the ribs, muscles, myomere and dermamere inferiorly included.

In the fourteenth zone, including the seventh dorsal vertebra, we have almost a duplication of those in the sixth, for the reason that the development there is sometimes inconstant. In one person it is sometimes sixth and in another seventh. The thirteenth and fourteenth zones intermingle and blend; that is, the lower part of the stomach is more likely to belong to the fourteenth zone than to the thirteenth, while the eyeballs and the throat are more likely to belong to the thirteenth than to the fourteenth, etc.

The fifteenth zone, including the eighth dorsal vertebra, includes also the pancreas, as its visceremere and the nerves which connect the pancreas with the spine as neuromere, also certain special tissues and muscles; and the skin which passes upward, outward, and downward, and again almost lost in front.

The sixteenth zone includes the ninth dorsal vertebra as vertemere, and the spleen as visceremere; it can be located below the stomach—not particularly below the stomach, but below in the order of its development. It should be below the pancreas, according to this system, in order to keep our idea of equal and superimposed zones, but we can see where the variations come in and the reason I painted you that picture of the formation of the earth's crust was to illustrate this very thing.

The seventeenth zone includes the tenth dorsal vertebra, and the visceremere sometimes includes the spleen and sometimes the kidneys, especially the upper portion or suprarenal capsules.

The eighteenth zone, including the eleventh dorsal vertebra, includes the body of the kidneys usually and sometimes a strip of tissue running around the body to the anterior. It is usually wedge-shaped, a wedge-shaped zone which comes together on the anterior of the body.

The nineteenth zone includes the twelfth dorsal vertebra, known as K. P., visceremere belonging to the nineteenth zone. Then we come to quite a distinct change from the wedge-shaped zones. In the lumbar region we find them wider.

The twentieth zone includes the first lumbar vertebra. The tissues, or a strip of skin or layer of the body, spreads out more than above. It includes quite a large portion of the small intestines as its visceremere.

The twenty-first zone, including the second lumbar vertebra, includes the lower portion of the small intestines. The large intestine and upper bowel is usually included in the twenty-first zone.

The third lumbar vertebra is in the twenty-second zone—constitutes the twenty-second vertemere, and it includes the organs of reproduction and also the sexual organs. That takes in the greater portion of the pelvis, including sometimes the bladder. Next, is a strip which passes down anteriorly and along the inner and anterior portion of the lower limbs.

The twenty-third zone includes the fourth lumbar vertebra, and the myomere, and the osseomere, and they are the two important meres of that twenty-third zone, because the zone includes the most of the muscles of the leg. The main body of the muscles on the outer and posterior of the leg, the buttocks, the femur, tibia, fibula, and bones of the foot, are usually included in that zone. The rectum and the lower large intestine, or a part of it, may be included in that twenty-fourth zone, as it frequently is.

The twenty-fifth zone, or zone of the sacrum, includes the sacrum and part of the surrounding tissues in the buttocks, and a triangular patch of skin just over the sacrum. It is not an important zone because very few serious diseases occur in that zone,

except in some cases which have come under our observation in which there seems to be definite connection between the sacrum in the twenty-fifth zone and the organs of reproduction, and occasional involvement of the immediate tissue between sacrum and ossa innominata.

There are many features about this Meric System which you will find to be of great assistance in your field work if you thoroughly master it and become familiar with it. It will materially aid your analysis in every case in making it more rapid, more definite and more accurate in locating every disease in man. That is a claim that has been made to a great extent by Chiropractors, and a claim which can be substantiated if capable men with thorough knowledge are doing the work, but I am afraid most of us are at fault and will fail to do the work as it should be done unless we have an idea of the Meric System or an idea of the principles which make that system.

SUPERIOR MERIC SYSTEM

There is a saying that "a man can do but one thing at one time and do it well." We are little people, but we like to concentrate the little to doing one thing right. We educationally may desire to do a certain thing, and it takes just about all the educated brains we have, concentrated to one definite end, to know how to be able to do it and do it the best we can. To be able to do a thing is to know how to do it and to know how to do a thing is to be able to do it. It is almost impossible for one man to do two things at the same time and do both perfectly, as, or as nearly perfect as he can. It shows that one brain cannot do two things at one time and do both right. Analyzing that still further, it means that one lobe cannot do two things at the same time and do both well.

One thing done at a time is an individual act. Hence there must be an individual actor to act out that act. Take a given play upon your stage. There are eight characters in the play. Eight people represent eight characters. One person represents a character. At another time in another act perhaps he represents another character, but he is at the same time one man representing one character. One man cannot be two men and represent two characters. Each man is an individual actor, acting out an individual act, so while we observe upon the stage the individual act and the individual actor there is behind even that an individual system of muscular contractions, one individual, yet many systematized individualities. Behind each of these is an individual impulse; behind the impulse was an individual desire.

If a man portrays ten emotions in a space of ten minutes he is doing it as a product of ten different thoughts. As we watch the various phases of a person we say that he is a many-sided man. It is said of Napoleon that he had forty brains; that he could open one door upon the right side and utilize it to write letters; open another upon the left and dictate letters; open another and direct battles; open another and dream dreams. He was one of

the few men who could utilize many brains at the same time. They are many-sided so far as we see the different sides of that man at different times. One lobe then can only do one thing at one time.

If it were true that a man could portray ten emotions through ten lobes in a given ten minutes and do each one right, one at a time, then we might maintain that one lobe in a brain could think ten emotions and the same body could portray those emotions because each one is taking place at a different time, but when every one of those emotions becomes an incessant emotion, always there day and night, continued, then we cannot argue that one lobe can do the ten kinds of work at ten different times, because now we have ten emotions *always present*, consequently there must be ten lobes to create the ten emotions incessantly. If we have one hundred different functions being portrayed in a given body continuous, always there, always working, then we must have one hundred lobes to make it. The heart's action is continuous. The lungs' action is continuous. Reproduction is continuous. The secretions and excretions are *always* there. The expansion of new cells is always taking place. Consequently each function has a specific lobe working behind it. The more functions we can personify the more lobes there must be to make that function, especially when it can be proven that these functions are always acting.

In building a twenty-five story building the first thing done must be to have a desire upon the part of some man or a set of men to want to see a picture personified in bricks and mortar. That is, man, in his desire, has systematized his thoughts; has arranged them in different forms, different colors, shapes, quantities, sizes. All the attributes of expressions have been carefully weighed and considered in the mind of this man to the extent that instead of existing as a heterogeneous mass everything becomes a moving, running picture; each picture following the right one, preceding the one to come after. Before any man can proceed to build a twenty-five-story building all his ideas of that building must be systematized, regulated thoroughly in his mind. Then once having completed this mental picture he must systematize ways and means of putting those ideas and pictures on paper so that others may see as he saw, for words are inadequate to convey pictures from mind to mind. Then once he has systematized the ways and means upon the part of his instruments or upon the part of the man who utilizes the instruments, he must then systematize his drawings, his pictures as they are on paper. The cellar is built first, the first story next, the second story next, the third story next to that. So each one begins to build, either from top down or from bottom up.

It would not be consistent to say that he has systematized his drawings according to the first floor, nineteenth, twenty-second, fourteenth, eleventh and eighth, etc. Each one would not be in systematic regular order as they are to be builded.

Having systematized his drawings, he must systematize his figures, figures of quantities, dimensions, days, qualities, amount of help, kind of help, color, etc. All must be specified in figures. All

goes to show a systematization of his picture. Quickly bridge the chasm, see the building finished, completed in every detail. You are brought face to face with two facts. You observe the architect, who sits in his office, perhaps one hundred miles from that building. He has not seen the building. He has not been there to superintend the brick, where to put them and how. He hasn't superintended anything in the construction of that building personally, yet if you or I were to look over that building carefully we would and could see the builder. The building is a prototype of the builder—always. As we see the general outlines of that building we can pretty nearly see the general outlines of the builder. As we see the ideas of designs we see the ideas of designs of the mind of the builder. They tally. They are equal. One compares favorably with the other. Everywhere that man is, is stamped what man is upon what man does. You see individualities in an office and yet the office-holder may not be there. As you see the builder, perhaps not having seen the building, you can imagine and know just what kind of a building he will erect. A man capable of erecting a two-story frame building (that being the end of his endeavors), you would not expect to erect a twenty-five story city office building. It is beyond his reach. He can't see the picture of such a building in his mind, consequently he couldn't build it.

Man is a building. He is a twenty-five-story building. Where is his twenty-five-story builder? If he is a building there must have been a twenty-five-story builder, because they must be equal. There must be something on the builder side to tally with the building. It would be unreasonable to believe that a one-story builder made a twenty-five-story building, and if man is a twenty-five-story building, according to your *Inferior Meric System*, he must have had a superior twenty-five-story builder.

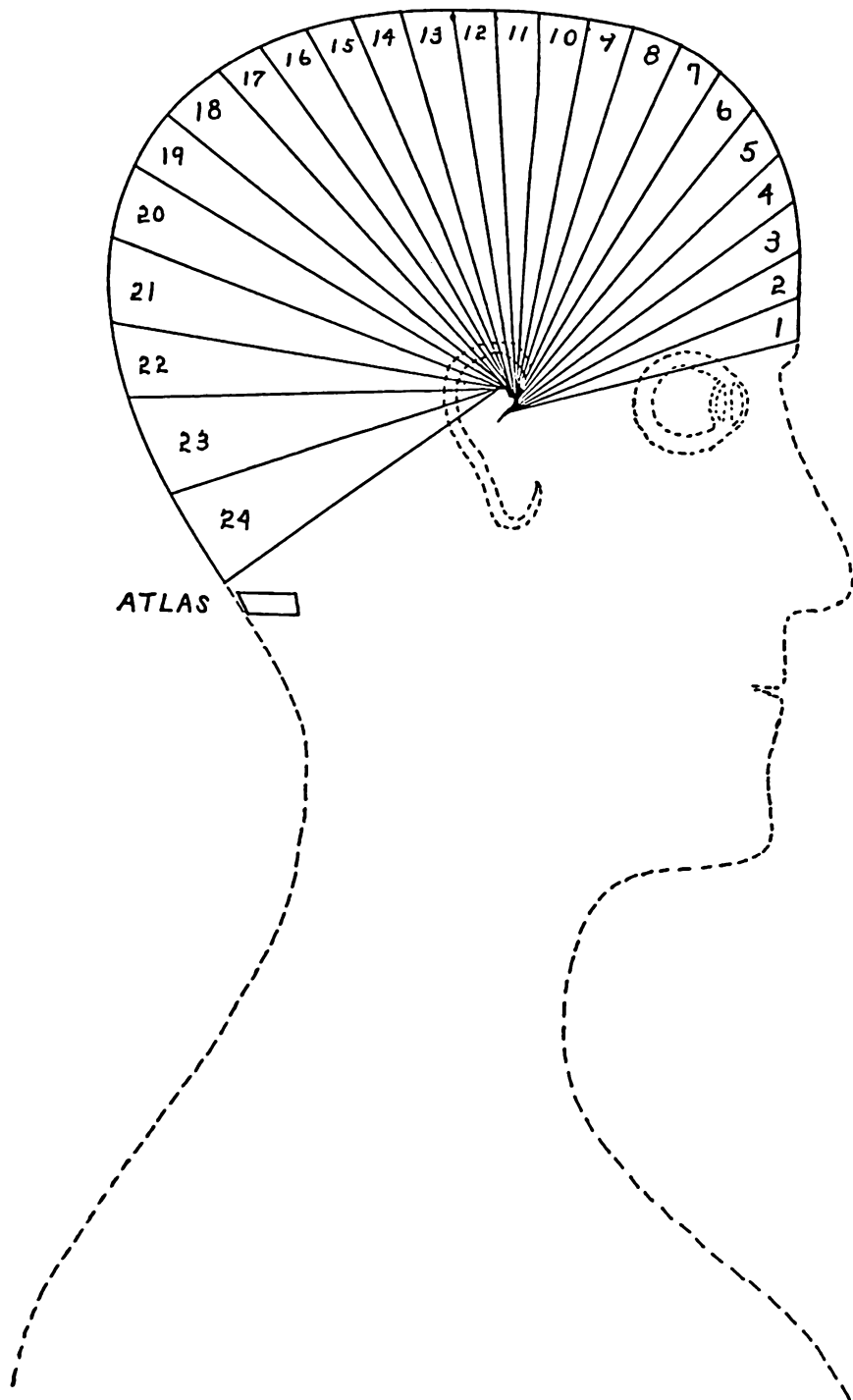
We might liken this, in a sense, to a Universal Intelligence as the architect and the twenty-five thoughts in twenty-five lobes as twenty-five Innate Intelligences, and each intelligence is equivalent to the one floor in the twenty-five-story building. We might bring this home to ourselves by supposing that there is a Universal Intelligence and there are also twenty-five Innate Intelligences in us and then we show twenty-five meres or zones to tally with each Innate Intelligence, and while this is not correct speaking—exact—nor is it true to the conditions, yet hypothetically we could assume that basis.

In building our office building of twenty-five stories for the sake of economy and for the sake of commercial gain the superintendent of the building places one janitor on each floor. That janitor only keeps clean one floor, not the one above nor the one below, just the one he is on. The superintendent perhaps has his office on the first floor, handy, where every janitor and attendant can reach him when necessary so that everything is in touch with the manager and the manager is in touch with everything. For the sake of economy in the building of man we have permitted all the janitors or all the superintendents to occupy one floor instead of

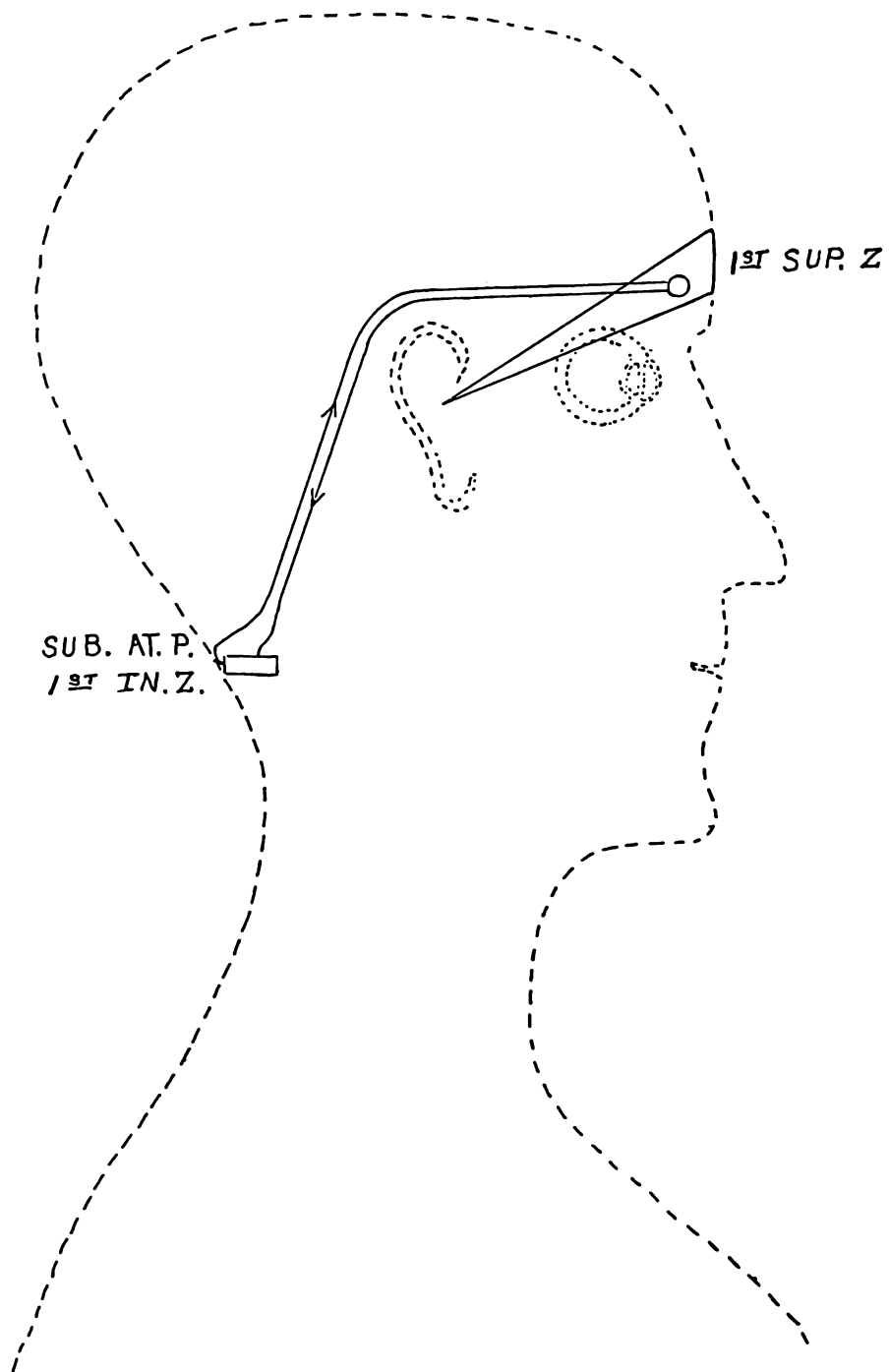
placing each on a separate floor by himself. As I say, for the sake of economy of material, position, place and space, we have gathered all of these floor superintendents together into one place called the brain. There is a question of "*multum in parvo*."

What has all of this to do with a question so simple as headache. Headache is a simple question, yet a problem that has worried me for years. I never have felt before that I could solve the problem of what a large percentage of headaches were until today. In the study of aches and pains we realize that it is purely a matter of degree, and much depends upon the persons themselves as to how much and why they suffer. One person may have but little pain and make a big fuss. Another may have much pain and make little fuss. Others may express themselves exactly as they feel, their words indicating degree according to the degree of pain. It is true we feel and we feel only with our minds as they work through a brain; as the brain interprets impressions as they come from the periphery. How we feel depends much upon how we interpret. How we interpret depends entirely upon what we get to interpret. Some persons have "slight fulness" in the head; others have slight "aching conditions"; others have "a dull aching," others have "a sharp aching," others have "pain," and another one says "My head is paining badly"; another, "This pain is terrific," and another "This pain is excruciating." All are but words to express *degrees* of conditions and these words usually are spoken "unconsciously"—*spontaneously*. That is, as the picture exists in the mind so do words speak the picture; the same as a person sees a street car so does he portray it on paper. If he saw straight lines, he would make straight lines. If he didn't, he couldn't.

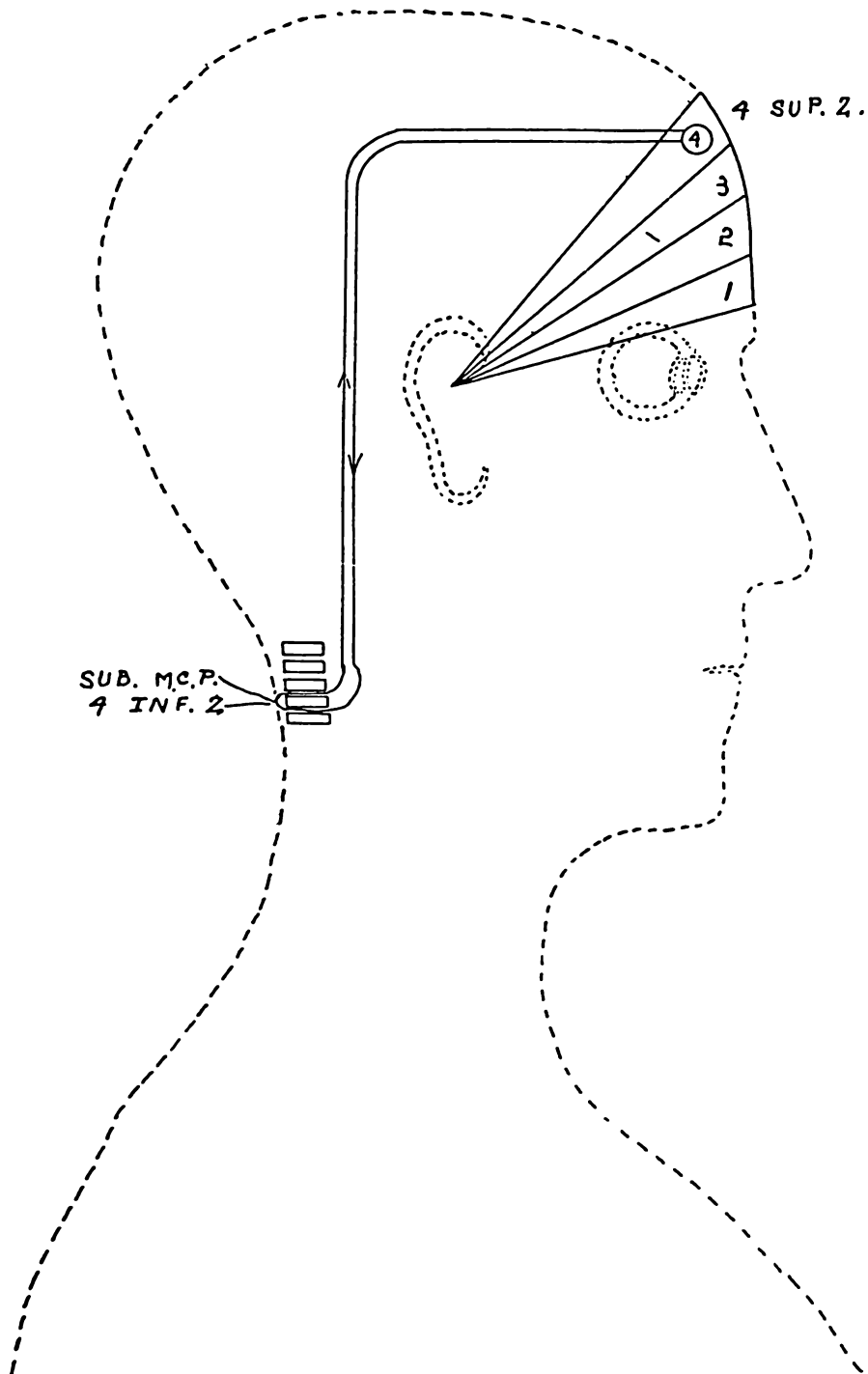
THE MERIC SYSTEM



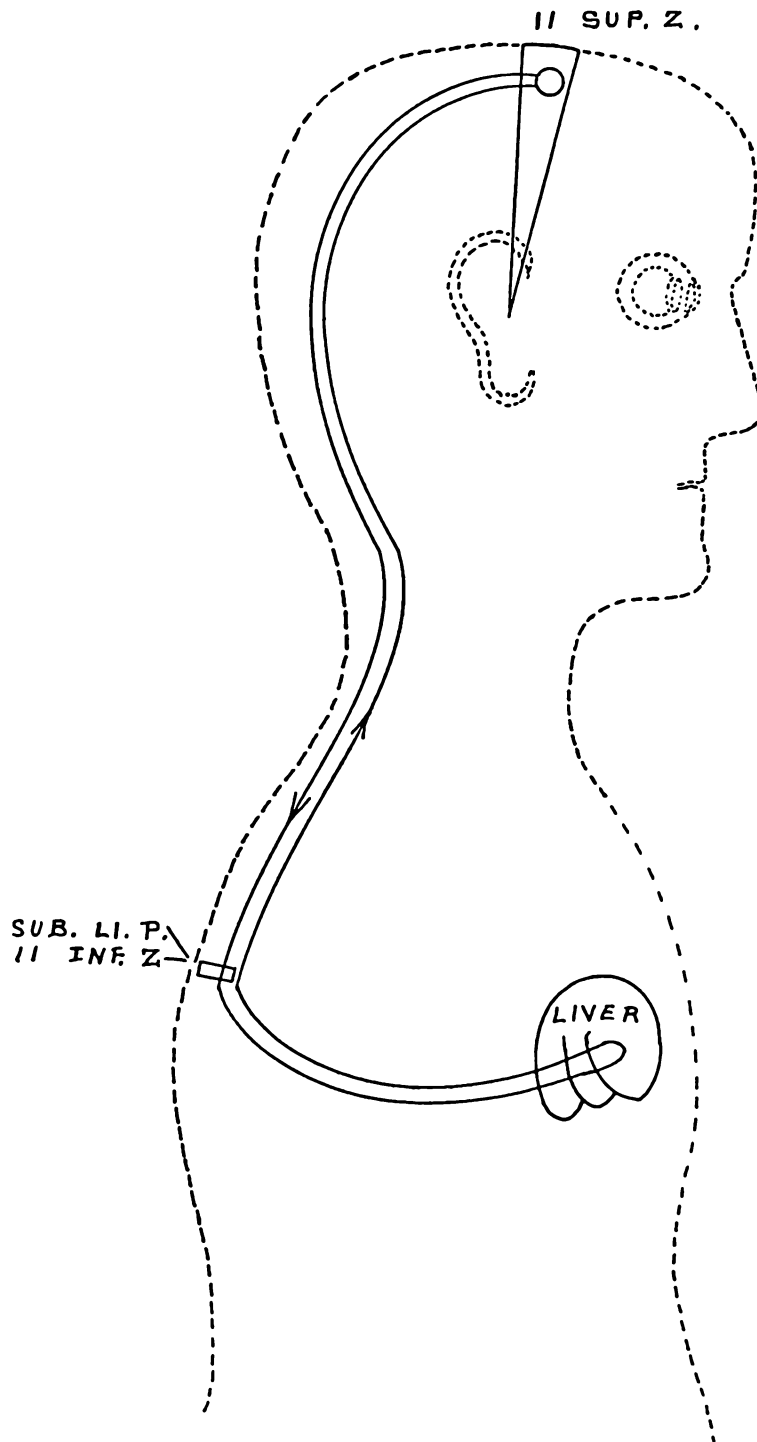
Superior Meric System. Lateral view to show schematic arrangement of zones, numbering from before backward.



Superior Meric System. Lateral view to show schematic arrangement of subluxation of 1st inferior zone (atlas) will make manifest "neuralgic" headache in 1st superior zone (over the eyes.)



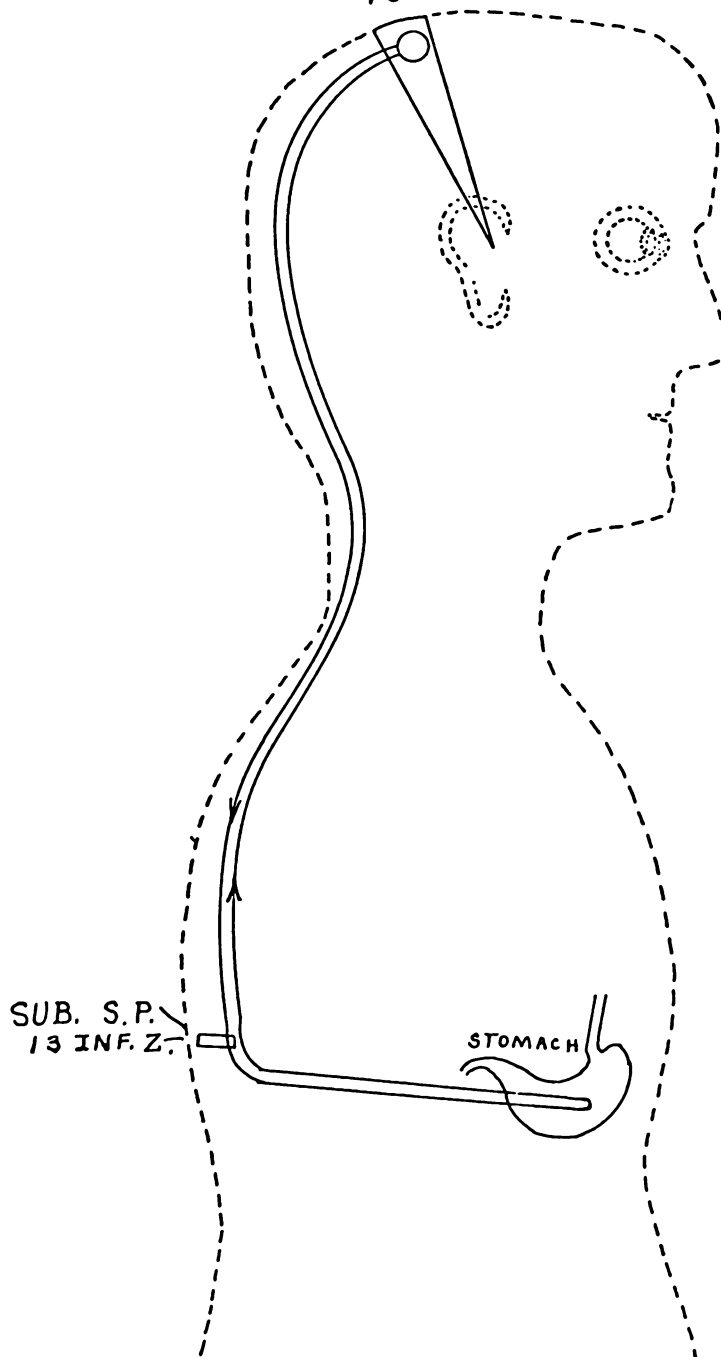
Superior Meric System. Lateral view to show schematic arrangement of subluxation of 4th inferior zone (4th cervical) making manifest a "nervous headache" in 4th superior zone.



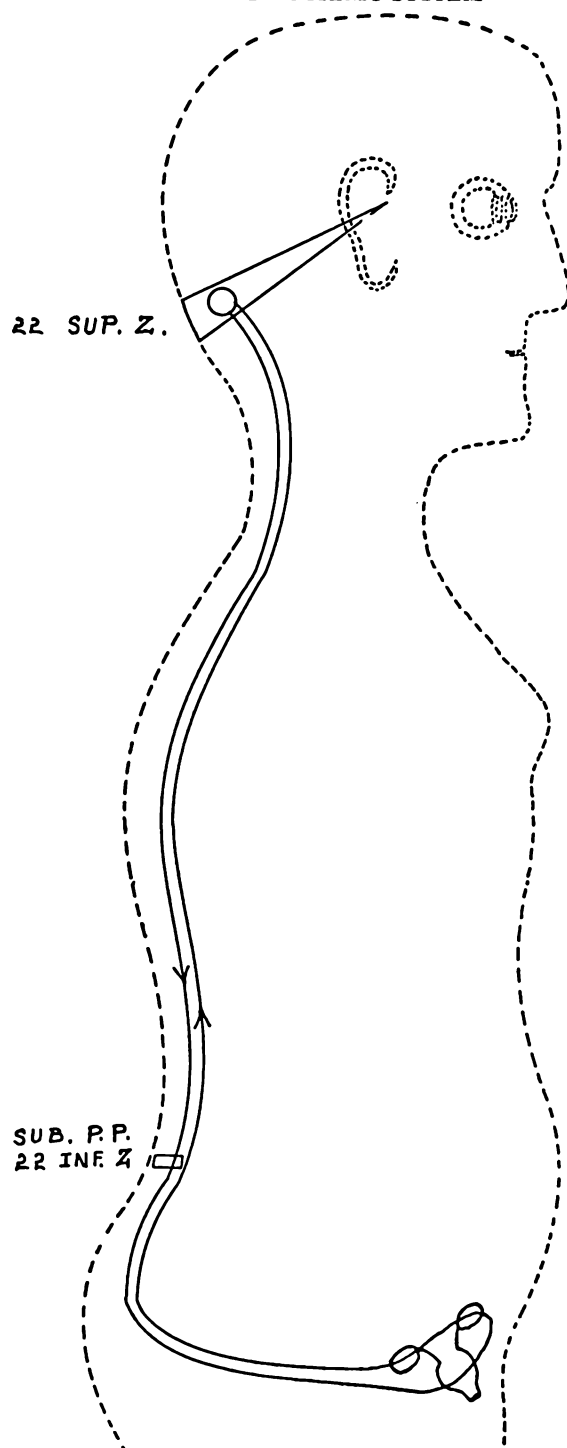
Superior Meric System. Lateral view to show schematic arrangement of subluxation of 11th inferior zone (4th dorsal) making manifest a "bilious" or "liver headache" in 11th superior zone.

THE MERIC SYSTEM

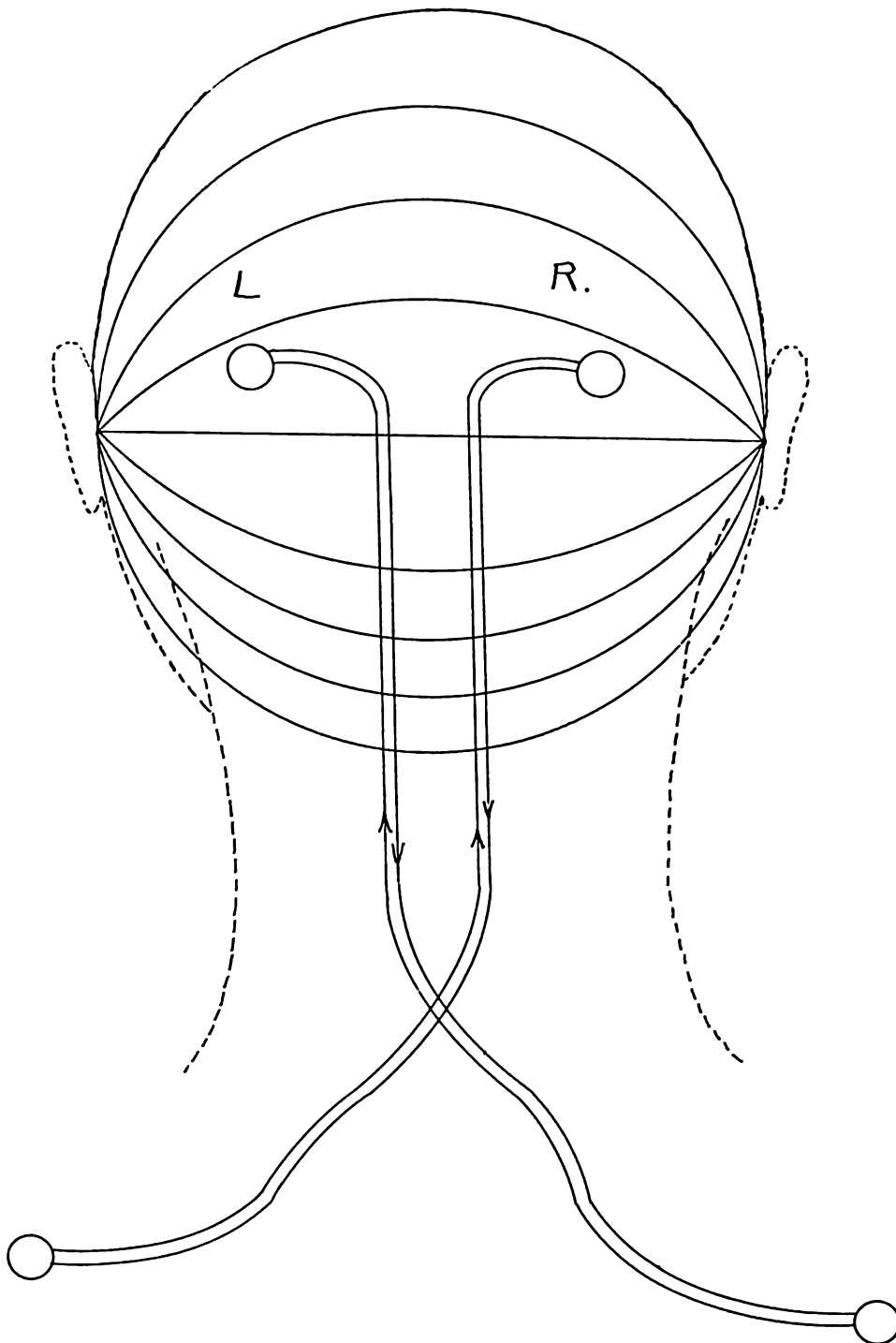
/3 SUP. Z.



Superior Meric System. Lateral view to show schematic arrangement of sublaxation of 13th inferior zone (6th dorsal) making manifest a "sick" or "stomach headache" in 13th superior zone.



Superior Meric System. Lateral view to show schematic arrangement of subluxation of 22d inferior zone (3d lumbar) making manifest a "periodic" or "monthly headache" in 22d superior zone.



Posterior, schematic arrangement of the crossing of fibres at the base of the 7th cervical vertebra, from a superior to an inferior zone.

Whenever there is an "ache" in the head there must be a condition to make it. Complete your cycle. Start at your brain. Send an impulse efferently and it reaches the tissue cell. *Full* expression, full transmission takes place and an impression goes back to the brain and is interpreted. All is happy; all is serene; "four o'clock and all is well." Meaning "there is nothing wrong. Nothing exists that would alarm at this hour." All is well so far as the expressions going back are normal, and the impressions are normal to be interpreted likewise. Supposing though you had 100 per cent of current in the brain. It gets midway, an obstruction takes place, and you shut off 50 per cent of transmission. Then only 50 per cent of function takes place. Can you expect 100 per cent of function to take place at tissue cell, and that 100 per cent would go back to brain and be interpreted as normal? *No*. It is contrary to facts. If you have only 50 per cent of function at tissue cell, you would only expect a 50 per cent interpretation at brain because your impression would be only 50 per cent.

The "aching" in all reality appears to be in the place where the abnormality is, such as the endings of your efferent nerves, but the aching *is* in our brain. To be more specific, it is some particular portion of that brain, for all the brain does not suffer, although it may so appear.

Man has been a mysterious thing. This so-called unconscious side of him, this mysterious sympathetic, this enigmatic reflex action, has always been a problem; and to the end of trying to discover the indiscoverable, man has invented vivisection, the art or science of cutting man to pieces to see how far we can cut him and yet let him live. And to this end the brain has been the center of most of this work, feeling that in cutting a brain; in slicing it off in thin wafer slices, they could discover which part of a brain belonged to the various portions of a body, and under this head they have found that specific lobes of the brain seem to have a specific connection with portions of a body. They have found that when a certain lobe was stimulated effects were stimulated in another part of the body. They have found a distinct connection with all parts of this brain with all parts of a body. By slicing away portions they have cut away functions existing at peripheries. Working upon this basis then, a few radical thinkers originated what they called a method of determining what kind of a man, a man was, from external appearances. They knew, according to the logic of vivisection, that a certain part of a brain indicated a certain duty to perform and if that part of the brain was well developed then that man was strongly developed in a specific function. If that lobe was not developed that man was weak in that particular aspect, so they originated the idea that by feeling the outward appearance of a man's skull, finding the outlines, bumps, ridges, valleys, and the mountains on a skull, they could tell the general character and adaptabilities of that man. Thus originated the ideas of Phrenology.

They argued upon the common ground that as a certain lobe was normal it was being utilized. The more that lobe of the brain was utilized just that much more did it push out that part of the skull a little over that lobe, consequently made that more prominent, and according to the science of "bumpology" did they establish the idea of Phrenology. The more bumps a man had, where they were, determined how strong that man was in certain endeavors, in certain lines. On general grounds this may seem far-fetched. On specific grounds you may still maintain that *the general aspect* of the head, rather than the specific lines, does portray the character of the man. On general grounds this might be admitted to be true, but on another ground it is entirely and radically wrong; on the ground that the weight of a man's brain does not determine the value of the thoughts going through it. Size never made value, nor size never made quality. The shape of a skull doesn't determine where the insides of a brain are going to be put. The best part of my brain might be in the smallest appearing portion on the outside. Large foreheads are supposed to denote intelligence. Some of the brightest and smartest men the world has ever seen have been men of low foreheads, and some of the biggest foreheads are today in penitentiaries. There are contradictions for and against.

The side that impresses me most in this connection is that an atlas subluxation in a child may hinder very much the growth of a portion of a skull; and that portion of the brain, lying just interior to that portion undeveloped, will naturally adapt itself to a larger space some other place in that skull, and continue to develop as a brain, yet the skull cannot develop. The child is born with a subluxation. The skull is undeveloped in a separate portion. The Phrenologist in later years says this child is "long on so and so" and "short on such ideas." The truth of the matter is the child perhaps is not short of anything. The subluxation and its consequential effects fool the Phrenologist.

Again, hypertrophy may take place in some portion of a skull and it becomes very prominent and large, which is quite common to the human family, and he be very much mistaken. I might say then in the last analysis that the various shapes that our heads take is determined entirely by subluxations for we all have a normal pattern, and if all of our heads fulfilled the idea of the pattern we would all have the same shaped heads, but not of the same size. The shapes of our heads then are due to the normalities or abnormalities; to the excess or minus of functions, which are more common to a skull than to any other bone of a body, as is proven by a review of hundreds of skulls.

Still, notwithstanding this statement, the old and early ideas of vivisection, that each portion of a brain has a part of a body to govern, is true. I never have advocated the ideas of vivisection. It is brutal, cruel, and mean, for man, in his unmerciful power, to take advantage of a dumb brute. I never have advocated dissection upon dead bodies because dissection has proved nothing of value to

man in his progressive element. Take all the knowledge gained by dissection; throw it in the furnace and let it go up in smoke and man would be as well off, for all the ideas advanced have not advanced man, for there exists no practical application of them to him; consequently in the last analysis we are forced to analyze man as he lives. To study man we must study man. To expect to know something about a living man we must study man as he lives, not as he is half dead or totally dead. All the ideas of value, in ages past or future, will be the determinations and analyses made by living men upon living men.

We have discarded practically the sympathetic nervous system; all of the nervous system of the anatomists, symptomatologists and neurologists, and replaced a nervous system direct as proven out upon the living, the feeling. We have proved this to the thinking, studious student who feels the application of a certain system to his body. We have seen fit to call this a nerve tracing system because we are tracing, not on vivisectional or dissectional bodies, but upon living, reasoning bodies wherein the intelligence of the patient assists the intelligence of the Chiropractor and the two work hand in hand; one aiming to give and the other receiving; one aiming to take what the other gives. Thus it is a mental action, *with* the other, not one against another, not the stronger dominating the weaker. Consequently in advocating the new idea to come, I am doing it upon the grounds of a systematization of thoughts advocated and endorsed by the intelligence of the patient, as well as the observation and analysis of the Chiropractor, made upon, by, and through two living bodies. That is, the conclusion we will make and the idea offered, is backed by the logic of both parties concerned.

It is true that vivisection has proven some things, that it has proven more than Phrenology; but neither one has reached a logical conclusion to prove its facts. There are five kinds of headaches. In laying my fundamental rules I have worked from the known to the unknown; known because we know, because you think, reason with your intelligence. We have the neuralgic, the nervous, the bilious, the sick, the periodic headaches. The neuralgic headache is through the forehead; the nervous headache just back of the forehead; the bilious headache, slightly back of that; the sick headache on top; the periodic headache in the base of the brain. You women who have suffered from that "periodic headache" know what a heavy, pulling, tugging feeling there is in the occipital region. If you have ever been sea sick, it will be a sick headache *on top* of the head; if a bilious headache, just in front of that. The nervous headache is located just in front of that, and the neuralgic headache still farther in front. With neuralgic headache, how you wanted to put a band around your head. Your head was splitting.

Dr. Butler, at this time, brings in a number of points that are of value and we will consider them as we proceed. On page 41, under figure 5, "Diagnostic Import of the Character of Pain," he says:

"Pains may persist after the removal of its factors, apparently because the pain habit has been formed by the affected nerves and their associated centers; but as a rule, pain extending over a long period of time indicates a continuance of the pathological conditions from which it originated."

Notice the thought of pain being an adaptation following a pathological condition from which the pain originated. While the pathological condition does not originate the pain yet the pathological condition and the state that that is in, is what induces the quantity of vibration which goes to make a characteristic impression which, when it does reach the brain and is interpreted, becomes a pain.

Page 44, under the head of "Diagnostic Import of the Seat of Pain." "Headache and Pain in the Head"—"Pain in the head is a symptom of diverse meaning and origin. Headache is defined as an attack of diffuse pain affecting different parts of the head, and not confined to a particular nerve."

Under "Neuralgia," immediately following, "It is functional in the sense that no disease of the nerve itself may be present." In the next paragraph: "In general, the causes of pain in the head are as follows, excluding traumatism:" Notice the list of names from figures one to eight, including pathological conditions and not considering traumatic conditions. "Anemia and sudden hemorrhages. Nephritis. Constitutional diseases: diabetes, gout, lithemia, rheumatism. Specific infectious diseases, mainly fevers. Intoxications: alcohol, lead, mercury, tobacco. Neuroses; epilepsy, hysteria, neurasthenia, exophthalmic goitre. Inflammation or organic diseases of, or affecting the nervous system; embracing arteriosclerosis, diseases of cranial bones, meningitis, encephalitis, neuritis, syphilis, and tumor or abscess. Reflex or referred pain from diseases of the ear, eye, nasopharynx, stomach, and sexual organs. Fatigue, bodily or mental; impure air, acclimation."

The list of diseases is not confined to some particular pathological condition. This list of diseases covers the body. He says that we can and will have neuralgia, which is but a form of headache or pain in the head, as a result of these diseases regardless of where they may be situated. "The character of head pain varies with the individual and the cause." The kinds of headaches that he speaks of are but a question of degree of the pathological condition being interpreted.

On page 46. "The location of head pain is of considerable diagnostic importance. It may be diffuse or in varying combinations, frontal, temporal, parietal, vertical, or occipital." Notice Figure 7, Page 42. For instance, we take the frontal and temporal. When there is a headache in the region circumscribed by the black lines they are inclined to be those listed. Notice the area circumscribed by the dark line above in the vertex region, and he names certain diseases there also. He lists certain diseases for the occipital region. Also notice Figure 8 on the next page. He refers to a localized pain between the eyes, to a disease of the nasal region. Notice

also the dark circumscribed line above referring to constipation, and also the next area to dyspepsia or ocular troubles. Also Figure 9. The causes of localized headache, according to the exact site of the pain. Notice the spot marked Eye and Teeth; also on the frontal Neurasthenia, also towards the occipital region the uterine or ocular neurasthenia and melancholia, and notice how he brings those all out. On page 48 he makes this statement: "As headache or head pain is merely a symptom, a careful search should be made to find the cause. It is of special importance to examine with reference to rheumatism of the scalp," etc.

Butler, in his diagnostic work, has observed that there seems to be a relation between certain spots, when aching in the head, with certain diseases in a body. I cannot agree with Dr. Butler to the extent that his list of diseases is correct with the location arranged.

You will notice in the first analysis we have classified man in five divisions, beginning in the region superior to the eyebrow and running back to the occipital region. Now, go with me, if you will, just a little deeper in this. We analyze man into a twenty-five-story meric system from above downward, but in some we have been seeing various conditions. Beginning from the eyebrows up and ending at the base of the occiput, that region is divisible into twenty-five sections—twenty-five sections from side to side, making, as it were, the mastoid process a pivot upon which you swing a line divisible into twenty-five sections. Carry this a little further into your symptomatology, if you wish, and you find a person suffering with an aching in the neck, and I will show you a region in what might be called the fourth or fifth superior zone, and if that aching is entirely upon the left side of the neck come over on the right and you will find there a little spot that seems tender to the touch. When he touches that he feels it down in the neck. When the pain is on the right side of the neck you will find a spot exactly opposite that, or upon the left, and there it is tender. Thus the sides cross. We have known for four years, at least, that when we had a case of hemiplegia of the right side of the body the so-called "organ of hope" of phrenologists was tender upon the left side. When we scratch that, the depressed mind or blue and despondent melancholic disposition was bright and pleasant. The stimulation had an effect. Any other spot? No. Just that spot. If hemiplegia was on left, then an equal spot upon the right was tender. If paralyzed in left leg, only that spot on the right. If the right leg, then the spot on the left, and if both legs were paralyzed, both spots.

This analysis holds good in all the diseases that man has. For instance, your patient has a bilious attack, and knowing where, you can put your finger on the spot of the head and show where the tenderness is, the patient will so do unconsciously. Kidney trouble, diabetes or Bright's disease, lead that back to the nineteenth superior zone, and you will find a tenderness quite prominent and characteristic. Take a given case of constipation and you will find also its region. So there is this twenty-five *superior* meric system—so accurate is it in its analysis that I fully believe today that supposing

we didn't desire to ask any questions of a patient other than to answer "yes" or "no," we could, by an analysis of that twenty-five meric system, find the tender spots. Is it very tender? Yes. You have heart trouble. Coming back a little further. Is that tender? Yes. Quite so? No, not very. You have trouble in the spleen. Not very much, but enough to show itself. If these were localized specifically into its regions you could, from an analyzation of that twenty-five *superior* meric system, tell what he had, where he had it and how much he had of it.

This brings to our mind another way of analyzing man, another way of diagnosis or prognosing his case if you so desire. It gives you a system quite accurate.

I hardly think further explanation is necessary on the common ground that you can see when a cycle is not complete. The place where it is not completed is in your brain. There is where you get the equivalent impression, and there is where that is equivalently interpreted. There is where you get your knowledge of the fact that there is a condition wrong below, and the only way that you are notified that something is wrong is because you know it in your brain. There is where you get the equivalent impression, and there is where that is aquivalently interpreted. There is where you get your knowledge of the fact that there is a condition wrong below, and the only way that you are notified that something is wrong is because you know it in your brain. Consequently when thousands of cycles are passing through this phase, normally going to one particular place, the only place that you would be expected to know that something was wrong was in that lobe where the afferent fibres return with the equivalent impressions from the specific organs or viscus involved.

We will suppose, in the starting or completing of a cycle, that lobe one is where fibres go out to the ear. There exists a pressure upon the efferent nerve shutting off 50 per cent of current, and we will suppose those impressions going through the afferent nerve go back through and to lobe one. Only 50 per cent of impressions are being transmitted; only 50 per cent of interpretation is taking place in brain.lobe one. Where will you know something is wrong in this organ? Will you know it in lobe three, four or five? Lobe one is the only one receiving notice of pressure. There exists no pressures upon fibres going to other lobes. All the lobes are doing their duty but this one, which is only getting 50 per cent of impressions to interpret, consequently only half doing its duty. The result is, that in one exists a disarranged condition. Not in the material structure, but in the interpretations it receives, consequently only half doing its duty. The result is, that in one exists a disarranged condition. Not in the material structure, but in the interpretations it receives, consequently there is where the patient, that is feeling the conditions, says: "Every time I get a bilious attack there is one place in my head that doesn't feel right." That is why another patient will say: "Every time I get an attack of this gastritic there is one spot on top of my head that is peculiar.

It doesn't feel right." Watch it in your symptomatology. Watch it among your cases, and you will find that this is a fact more or less with every patient you get, and you can tell him where the spot is by dividing equally that brain into twenty-five sections. When he says "stomach," you think of the thirteenth inferior zone, the thirteenth vertemere. Then, also, think of the thirteenth brain mere and think where it is, and you can find the tender spot for him. This doesn't go to prove that he has a soft brain, or his skull is soft, but there is where this peculiar interpretation is.

You will find if you watch it carefully that your patient will, many times, speak of it "unconsciously." If you ask him directly to carefully discriminate between the feelings of the portions of the brain he will be able to specify spots definitely. The great fault in clinical work today is, that the average patient, when he has something wrong, "Oh, my stomach," will indicate, with his hands, the entire bowel region. He doesn't mean that. He means there is *one spot* that is burning. When he says "My head is aching," he thinks that it is *the whole head* that is aching. When you tell him to specify, to bring it down, he will tell where the area is. I came to this conclusion by an analysis upon the part of myself. None can think these ideas quite so clearly as when they are tried on ourselves. The other day I had a fourth cervical subluxation, and I knew it, by head wasn't clear, and I figured where my head was not clear, and I localized it in the superior zone, and it was correct. The fourth vertemere was adjusted and the dullness disappeared.

This brings to your mind, the same as it did to mine, how far can we carry this idea? For instance, a patient enters, he says, "Doctor, I have a sharp shooting pain here." Supposing that is the thirteenth brain mere. You conclude the place to adjust is S. P., and perhaps that might be right. Supposing we adjusted at S. P., and the headache disappeared, we would think the adjustment was right and the idea was correct, and I am reaching a conclusion that almost every headache has its zone in that form. Instead of adjusting some one specific subluxation, thinking that at the end of those efferent nerves is the headache, the same as gastritis is at the end of nerves going to a stomach, instead of looking at it in that light, I believe that all headaches are adaptative and the real place to adjust is the place where the impression gets started.

It may be that it is too far-fetched, but that is the end of the analysis at present. It is a question of neuralgic headache, and we adjust an atlas. We do not know whether the atlas subluxation was producing pressures upon nerves which ended in an educated brain, yet it seems reasonable. That is an organ the same as the stomach, and it is subject to receiving functions, as any other. There might be diseases of that organ having their origin there the same as an impression would have its origin from a stomach. We have an atlas and we call that an efferent zone. The atlas itself is the first vertemere and the brain is its viscemere, referring, of

course, to the educated brain, consequently we consider the educated brain as a viscus the same as the stomach, liver spleen or bowels. In that analysis then, we might consider, that pains could have their origin in that form. From an innate brain's standpoint there is the builder, the actor, the architect, there is the intelligence that makes things possible below, and one of its possibilities is the educated brain, so in that sense we can have pains in an educated brain as a disease the same as any other place. That is, we must have a disease in that educated brain before we can have the impression arising which gives origin to the disease known as pain in the brain.

Where we have a sectional meric system in the physical zone of man we must have a twenty-five-story Innate Intelligence. The one could not be capable of being the product of the other nor could the one be capable of being the producer of the product. As the producer, so was the product. As the product, so was the producer—they must be equivalent at all times. As a given example we find in tuberculosis, what is the tuberculotic headache." The patient always has a more or less dull headache. He will tell you just where he has it. An adjustment of Lu. P. alone would entirely relieve the characteristic headache, because that is purely an adaptive interpretation of things existing abnormally, and if our interpretation of pain is the mental interpretation by the mind in the brain of abnormal conditions externally, then this analysis will hold.

EQUATIONAL MERIC SYSTEM.

This morning I thought of a unique way of showing the value of equations.

I am taking nothing but a Royal Baking Powder Cook Book. I don't pretend to know anything about cooking—I can fry an egg and spoil a beef-steak, and do that as well as any man—but I am going to rely in whole upon the cook book for the ideas. Take as an example, Boston brown bread. It tells us here that we need flour. We will put it down—and corn meal, rye flour, potatoes, salt, brown sugar, baking powder and water—we have now analyzed it into the actual necessities that must be put into the pan to make this Boston brown bread. If we were making an equation of this according to letters we would have, taking the first letter of each ingredient: F., C. M., R. F., P., S., B. S., B. P. and W, and now, if our system of showing quantities was accurate, we would say that F one and C. M. two. He tells us how to prepare (functionate) these ingredients. You will notice the first question is *what*, second, *how much*—then *how to prepare* them. His advice is "Sift the flour, corn meal, rye flour, sugar, salt and so on, together thoroughly." Wash and boil two small potatoes, rub them through a sieve and dilute them with water, and when this is quite cool, mix it with the flour, etc.

So we put *the quantity* through the process of how, or rather, after we have done all, that he tells *where*. "Pour into well greased vessel having a cover," etc. The analysis of how to make Boston brown bread is summed up in these conditions: WHAT? HOW MUCH? HOW AND WHERE? I don't know about baking, but every woman who bakes should keep analysis process in mind. The first thing you do when you step into the kitchen, and I don't care what you are going to make, remember the first thing you do is to get your whats together and then figure *how much* (equations). When you have your how muches together, then consider how to put them together, and then you consider where to put this mixture.

Let us forget the question of Boston brown bread, and we will show you how near this is like a disease. Take, for instance, tuberculosis of the lungs. We are going to consider what? Fever, sputum, cough, nutrition, pain, sweating, reparation—that shows some of the things we have. That shows what a tubercular case *is*. Now the question is, *how much* of each of these has he? He has fever, all right, we will call that F. *There is more* than there should be if he were normal. Opposite that we will place lack of nutrition, then there is N—three.

There is no philosophy in these—there is a science and an art. Therapeutics in itself has no equation of cause and effect. Chiropractic has.

Equations. What does it mean? How has that word impressed you—not only in thoughts this minute, but in your life and actions? How many of you live the life of an analyst? You know it is one thing to talk equations to your patient and another thing to live it in your home. It is one thing to talk an idea for days and another to live the life because you know it is correct. Chiropractic is so thoroughly correct in its philosophy, science and art, that it is not necessary for a Chiropractor to be two-faced. If he goes into it deep enough he can live the life that he believes. Do you take into equations what you are giving an adjustment for, and drop it, or do you analyze *why* you give an adjustment—do you put your adjustment through an equation, *how much* force to give that particular patient? Do you reason *how much* you do this adjustment in this direction at one time and not at another? Why you do this this way on this patient and entirely different on another? How far do you carry your equations in your philosophy? I heard a most beautiful lecture on Symptomatology delivered in this lecture room. I saw the philosophy of equations plus-equations. Imagine my surprise, a few days later, to hear a student making the remark, "Isn't it funny how *that cold* has *crept* into my chest?" As if it came creeping along on all fours like a lizard on the ground. I might have given a philosophical answer, and perhaps *he* could have done so also but *was he living it?* He didn't reason that colds don't creep. He hadn't thought—that is, he hadn't *continued to think* thoughts of equations.

Symptomatology means a gathering of symptoms. What do a multitude of symptoms mean to you? They are products. What is that something of which they are products? To do that required analysis. Your physician asks a patient "How are you feeling this morning?" and so on, usually running a continuous stream of questions, and he soon has a long series of symptoms, heat here, cold there, pain here, and a twitch there—those are the symptoms, and these are the effects, and those are the results; but what they are symptoms, effects and results of, he is at a loss to know. Why? Because he has not analyzed the question at length. For instance, if this room is or was *150 degrees* you would say the room was hot, but the heat came from what? A stove. A hot stove makes the room hot. If this room was cold—down to zero, you would say there must be a refrigerator which makes the room cold.

The conclusion I want to make is, that behind the symptom there is something that makes it. Going step by step back, is a process of analysis. We have been analyzing what particular function was manifested. That is when we analyzed symptoms. We have found by a process of discrimination and elimination, that there were nine primary functions in the human body. Those are all that I have been able to analyze, and that is three or four more than any book on symptomatology will give. We found that an individual moved too fast; we analyzed that back to motor function. Fluids may be flowing into the patient's stomach—look to secretion for that—or, there isn't enough. He has pain, and that would be P. and its opposite would be I. A. He has sweating—that is, he is sweating too much, and we will call that S—or excessive excretion. We have analyzed *how much* of these he has. Let us consider the question of how.

$C +^1 X$ equals excessive combustion, and now the question arises as to where, so we will have $C +^1$ over the body, and in the lungs especially $N -$ over the body, and also in the lungs. $R -$, lungs principally.

We have taken the course of tuberculosis and we have analyzed it back to its component parts and quantities the same as in making Boston brown bread. Were I a carpenter I would analyze and show you how a carpenter makes a table. His first question is, oak or pine? Then the next question is *how much*? Why, enough to make a leg four by four inches square, and so forth. He saws it to *how much* he needs. Then how to put it together; whether to nail, screw or glue it. Where? Here at the school. What more do you need? It is simply a process of analysis.

Take the particular question of getting business; you want to know how to get patients. You are Chiropractors one side and patients on the other. There are two component parts to get together. *How much*? You have plenty of Chiropractic and he has an absence of it. He is shy and you are plus. How? That is the science and the art of Chiropractic. How to give what we have in plus and what he is shy of. That is what we teach under Adjustology. Then *where*? If it is tuberculosis, Lu. P., of course.

THE PRIMARY FUNCTIONS.

Secretion has to do with the transformation of the fluids and liquids that are made, but retained within tissues which secrete; for instance, bile is a secretion so long as it remains within the confining border lines of the liver or gall bladder, but it becomes excretion the minute it leaves the gall bladder. The liver secretes, the gall bladder excretes bile. Secretion is the formation, while excretion is the product of a gland after it has left the confining border lines of that particular secreting tissue.

Reparation is that particular form of motion which has to do with the repairing of tissues; with the replenishing of new tissue cells for the specific purpose of reuniting something torn asunder, something broken down by lack of nutrition or below the standard of normality. Reparation is the particular function which has to do with the centralizing of osseous tissue (as an example) cells at a particular time, and more particularly following a fracture.

Reproduction is that form of motion which concentrates itself within reproductive organs only, and has to do exclusively with the accumulative function of reproduction. The contractions of the muscles of the womb have nothing to do with reproduction. The lines between these two are broad. For instance, reproduction would be distinctly of the type wherein an arm was minus on a new-born child. Particularly this would have to do with the functions between—upon the interior of the womb.

Nutrition would have to do exclusively with the serous circulation and this is the transportation of the materials which are utilized as containing nutrient property. For instance, nutrient matter may approach the doors of a tissue cell, that in itself would be called the first process of nutrition, the transportation. The second process would be acceptance upon the part of the tissue cell of the nutrient material. The third process would be the elimination or the expulsion of that portion of the nutrient matter which could not be further utilized. The third process would be the process of excretion or throwing off the excrescence. Nutrition then is composed of three parts, each of which is under the dominating control of innate, as it passes through three states of the serous circulation.

Sensation is purely the mental interpretation, taking place within your brain, of impressions received from every tissue cell in your body.

Expansion is confined to the enlargement of *new* tissue cells. What I mean is, we have osseous centers; these are as small as a pin head, yet within that center are millions of embryonic osseous cells. By a process of analysis, taking place within the Innate mind, these embryonic or microscopical undeveloped cells begin a process of enlarging and one by one they leave this center and go forth to some place where needed. It is the unfoldment into tissue cells that becomes known as the process of expansion.

Caloricity is purely a process of heat producing. We utilize the term calorific function wherein heat and heat alone is considered. Wherever we discriminate heat from cold and wherein we discriminate heat and the uniting of a fracture they are two different things, altho it is quite common that the two are together. For instance, a man fractures an arm; he has no heat in one arm and in another has a fracture *and* excessive heat, showing that we can have a fracture with or without. It might not be uncommon to find that in patient number three we have excessive heat in the same portion of his leg that we had in another patient without a fracture. Yet he has no fracture, showing that you can have excessive heat in the same place without a fracture; or patient number four may complain of the same place in his leg being cold without a fracture. This shows that we can have heat or cold with a fracture; we can have heat or cold without a fracture. This shows then the process of analysis, discrimination between two conditions that may or may not be present in different individuals. It may be that individual No. 1, who has a fracture, is cold in that portion today and tomorrow, hot. The fracture is still there. The physician will tell you that in every case of fracture it should be hot; that heat is the reparation process. It is not. I have known cases of fracture in which there had never been any heat, the portion being cold all the time. Physicians as a mass don't analyze, therefore don't see what is before their eyes. In the case of nutrition you have "the fat woman" in the show, "the biggest woman on earth," weighing seven or eight hundred pounds, and you have a "living skeleton" also, "who weighs only thirty-nine and a half pounds, who is forty-two years old, hasn't enough hair to keep him from catching cold." Should the fattest woman on earth fracture the femur there is no reason why it should not heal; there is no reason why reparation could not take place. Taking the living skeleton, he may fracture the femur; there is no reason why his reparation should not take place. There may be another living skeleton in another circus—he may fracture his femur and it may never heal. There may be another "fattest woman on earth" (every circus has one, or should have), and she might have a fracture, and it might never heal.

This shows that nutrition and reparation are different functions because a person may have one without the other or he can have one with the other. You can have nutrition without reparation.

You may have calorific heat like any other patient in the right leg and have the *left* leg cold. You may have secretion and excretion or one without the other; many people confuse the two. We may have a typical case of jaundice; there is an excess condition of secretion and a minus secretion. You may find a case of gallstones, which is an excessive secretion and a concretion induced by "fever." I had a patient last year that perspired freely on one lateral half of his body and the other half was dry and shiny, no perspiration at all. There was secretion on one side and none on

the other. There was secretion and excretion on the side on which he perspired, and secretion and no excretion upon the other.

If you will analyze, think and permit one thot to follow another in the same line, you will reach the conclusion and prove to your satisfaction and that of others, that there is a discrimination between functions. It is by putting these conditions thru this process of elimination that we reach and find the particular equations. I might go on endlessly piling up these examples, but the possibilities that I might cite to you could be carried week after week, ten hours a day, and never strike the end. Butler, I take it, goes into all the possible combinations that he can think of and then has not begun to touch them.

Take the case of varioloid, chicken-pox, small-pox, scarlet fever and measles. There is *one* disease, and it is *called* five. In reality we have the same combination of functions with the exception that the pressure varies in each. Small-pox represents the same combination of symptoms that we have in the other four, only we have the greatest combination of pressures. Call them different diseases if you will, but in reality they are one. It brings up that most important question of *how much*, and when we solve the how much, we find there are thousands of diseases named from one. For instance, you have hay-fever, asthma and bronchitis, and you have a great many more centering in that place; they are the same. You tack a different name on because it is different in degree. That is what *equations* do for us. They make us take the broad view of what *disease* is, and the broader you go into equations the more you realize, that after every symptom has been stated, every book has been weighed, every phase of everything has been considered, every symptom has been analyzed, there is only *one* disease. That is the conclusion I make. I perhaps take a broader view than you, but to me there is only one disease. One patient says he has tuberculosis of the bowels and the second says he has diarrhea; they are the same. I don't recognize any difference when I put the two through the last analysis.

One person says he has "a headache," or "I feel blue," or "my head aches," or "my head doesn't feel just right," and another "has a pain on this side of his head," the next has "a little feeling which is not right above the ear," etc. Another says, "I am sleepy," "I have neuralgia in the left side of my hand," "I have neuralgia all over my head." Of all these types you will find that they are but different degrees in different locations of *one* disease. That is, they are one and the same thing when you have analyzed all symptoms back to their last analysis.

I asked you, in the early part of this lecture, how far you carried equations; how many of you carry them to that point where you can say, intelligently, that all diseases are but one? When I ask how many of you could tell me your reasons, and why, and have your reasoning hold water, there might be many of you who might be able to do so, if you would continue to allow one thought to follow the other.

So, as we pursue this work, we do it not only to be able to call forth an equation, but for a deeper motive. It is not a question of reciting an equation parrot-like, but because I want you to go into the equation of analysis of things.

Our boys, when they go into the field, make successes; they become good business managers and financiers, but the very basis of that success lies in the fact that we drilled you here to be analysts. The success goes to those who take the deepest interest in analyzing the problems of Chiropractic in their school work; naturally, then, when they get into the field, having done that kind of work here, they continue to do the same in the field and analyze everything they come in contact with in such a manner that they are always masters of the situation.

A MERIC BRIEF

The following brief outline was the subject for a quiz. It must be remembered that in many cases the zones overlap and also that in no case were all diseases in the zone mentioned. This was intended as a thirty-minute review of Volume IV:

ZONE.	ORGANS.	DISEASES.
First—Atlas.	Brain, ears, etc.	Insanity, cerebral meningitis or cerebritis, deafness, apoplexy, epilepsy, etc.
Second—Axis.	Brain, ears, etc.	Epilepsy, apoplexy, deafness, etc.
Third—3C.	Eyes, tri-facial nerve, nasal passages	Optic neuritis, atrophy, etc. Facial neuralgia, catarrh, etc.
Fourth—4C.	Nasal passages, mouth (teeth), optic nerve and retina.	Optic neuritis or atrophy. Catarrh, toothache, facial neuralgia.
Fifth—5C.	Post. and lat. neck muscles. Sometimes same as fourth.	Nasal catarrh, atrophy of neck muscles, spasm of, etc.
Sixth—6C.	Larynx, thyroid gland (sometimes), post. neck muscles.	Aphonia, goiters, laryngeal inflammation.
Seventh—7C.	Post. neck muscles, ant. arm.	Atrophy of arm muscles, rheumatism in arms, etc.
Eighth—1D.	Arm. bronchi.	Paralysis of arm, asthma, etc.
Ninth—2D.	Heart, pericardium.	Palpitation, angina pectoris, Valvular disease, etc.
Tenth—3D.	Lungs.	Consumption, pneumonia, "lung cold," pleurisy.
Eleventh—4D.	Liver.	Gallstones, torpid liver, enlarged liver, jaundice.
Twelfth—5D.	Center place.	General X heat, general paralysis, cerebro-spinal meningitis, locomotor ataxia, multiple neuritis.
Thirteenth—6D.	Pharynx, eye-balls, thyroid (sometimes stomach).	Pharyngitis, goitre, defective sight, gastritis, gastric cancer, indigestion, etc.
Fourteenth—7D.	Stomach. Same as above.	Same as above. Stomach disease more common.
Fifteenth—8D.	Pancreas, diaphragm.	Hiccoughs, pancreatitis.
Sixteenth—9D.	Spleen.	Splenitis, enlarged spleen.
Seventeenth—10D.	Supra renals, part of kidneys, eyelids.	Addison's disease, granulated lids—nephritis, diabetes, etc.
Eighteenth—11D.	Kidneys.	Nephritis, diabetes, amyloid, kidney. Diseases of serous circulation have origin here.

ZONE.	ORGANS.	DISEASES.
Nineteenth—12D.	Kidneys, ureters.	Abnormalities in character of urine, in quantity. Same as above.
Twentieth—1L.	Small intestines. Peritoneum.	Intestinal obstruction, constipation, diarrhea, peritonitis.
Twenty-first—2L.	Small intestine. Leg.	Appendicitis, typhoid fever, constipation, diarrhea, etc.
Twenty-second—3L.	Sex organs, ovaries. Leg.	Ovaritis, venereal disease, menstrual irregularities.
Twenty-third—4L.	Large intestine, thigh, nates.	Piles, constipation, rheumatism in thigh, etc.
Twenty-fourth—5L.	Rectum, thigh, nates, sacral region, uterus.	Piles, constipation, uterine displacement, etc.
Twenty-fifth—Sacrum	Uterus, broad ligament, thigh.	Uterine displacement. Disease of adjacent muscles.

MERIC SYSTEM.

"Mere." "boundary. Only this and nothing else. Such and no more."—*Webster*.

Verte-Verto, to turn. Used in connection with vertebræ.

Derma-cutis; cutis, skin.

Myo-muon-muscle.

Viscera. Internal organs of the body. A term used to denote movable organs in contradistinction from "organ—any living tissue."

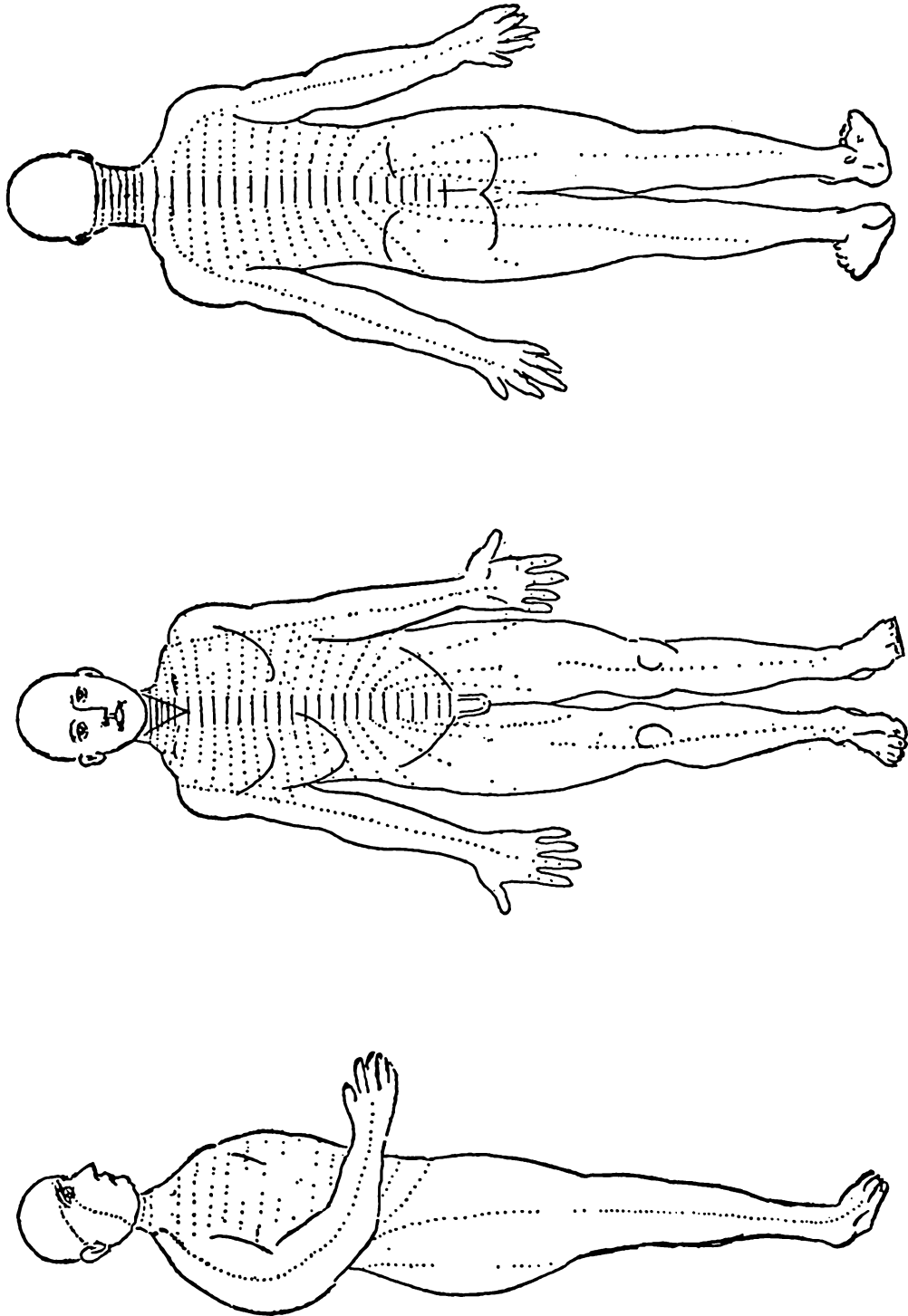
Oseo-ossis-bone.

Verte-mere. A spinal boundary confined by the vertebra in question. Each vertemere is bounded superiorly by a central horizontal line of the superior intervertebral cartilage and inferiorly by a central horizontal line of the inferior intervertebral cartilage. In this division the lower one-half of the superior cartilage, the centrum and other processes of the vertebra in question and the superior one-half of the inferior cartilage constitute one vertemere. Within the boundaries of each verte-mere is one set of brain nerves, having exit from the spine. The atlas or 1st verte-mere has two sets of nerves. "Verte-meres" are *causative* localities, thus facilitating the location of a cause considerate with what derma-mere, myomere will determine. Where the effect is in a derma-mere, myo-effect will always determine the verte-mere from which it has a causative origin. The location of a subluxation in a specific verte-mere will determine where the effect must be in a derma-mere, myo-mere or visce-mere to correspond. There are 26 vertemeres, all told.

Atlas,	1st vertemere	7th Dor.,	14th vertemere
Axis,	2nd "	8th "	15th "
3rd Cer.,	3rd "	9th "	16th "
4th "	4th "	10th "	17th "
5th "	5th "	11th "	18th "
6th "	6th "	12th "	19th "
7th "	7th "	1st Lumbar,	20th "
1st Dor.,	8th "	2nd "	21st "
2nd "	9th "	3rd "	22nd "
3rd "	10th "	4th "	23rd "
4th "	11th "	5th "	24th "
5th "	12th "	Sacrum,	25th "
6th "	13th "	Coccyx,	26th "

Derma-mere—One of the localities, superficial, each of which is bounded superiorly, inferiorly and internally by the nerves which peripherate therein, which come from a verte-mere that corresponds to the schematic drawings accompanying. Nerve fibres from one will slightly extend into the derma-mere above or below, thus one derma-mere as well as myo-mere, visce-mere or ose-mere will blend into the others adjoining. In this division, like all other studies of anatomy, there exists no clean cut sections, altho they are well defined. The effect in a derma-mere may be superficial or

deep. The disease may blend into the internal boundaries of the superior and inferior or from the external of the one-derma-mere, thus technically involving more than one mere; altho all, literally, may be within the one same zone and produced by the same cause. The location of a certain derma-mere will prove the verte-mere in which there is a subluxation. Derma-meres are boundaries of skin where any skin effects can exist. A *cause* is only within the boundaries of verte-meres.



A posterior, anterior and lateral schematic reproduction of the dermamereres of the surface.

It is hard to conceive of any known anatomical differences of skin to divide the same into meres. This classification is and is not a physiological discrimination—possibly when physiology is abnormal and impossible when normal. Derma-meres are determined pathologically only.

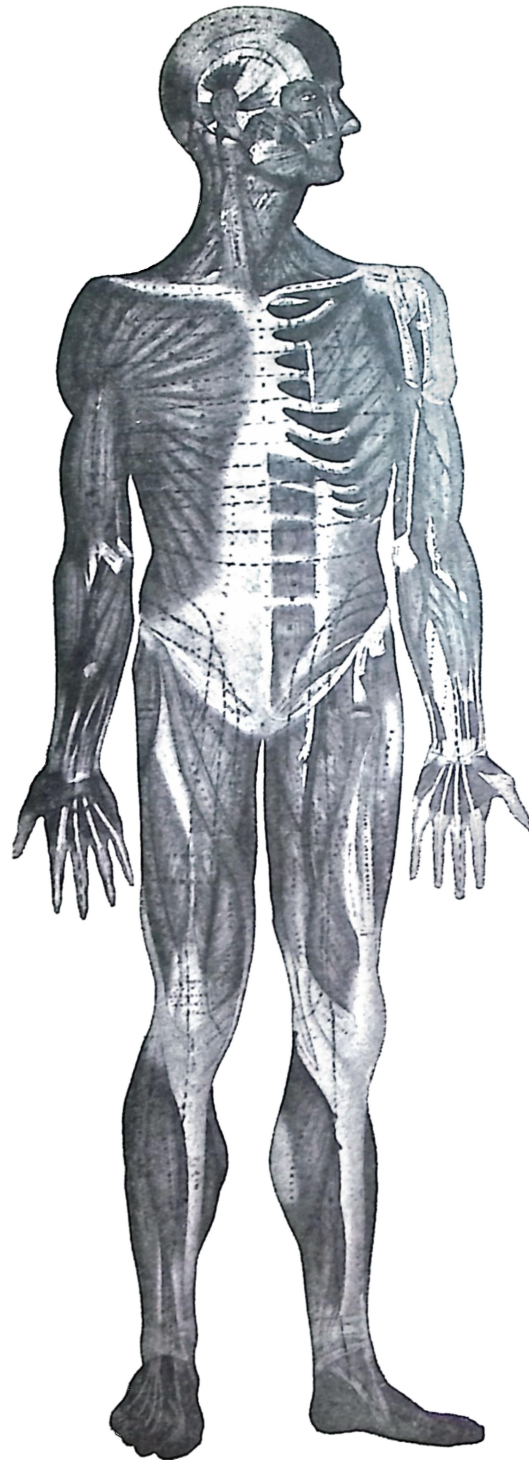
Myo-mere—In general, can be compared to the derma-mere, visce-mere and oseo-mere.

The term designates that certain muscular fibres, muscles, sets or portions thereof, come within the restrictions of being in that particular zone that may be under surveillance. It is one of the territories that can be affected, in part or whole, therefore is regarded as an affected zone and not causative.

Visce-mere—The torso is divided into external walls and what they contain internally. The main two divisions are the thorax and abdomen, which are again segregated into superimposed zones, one above the other, starting with the floor of the pelvis, and extending, in sections, to the dome of the chest. In each zone is situated some viscus or portions thereof. Each gland, viscus or portion thereof, must have its peripheries of nerves, which leave the spine at some distinct verte-mere. In this manner some one viscus will be in one specific *visce*-mere and run partially into the one above and below, yet its nerve fibres will leave but one distinct verte-mere.

The following table of muscles is copied verbatim from Gould's Pocket Dictionary, 4th Edition. I have but added the myomere in which it is located:

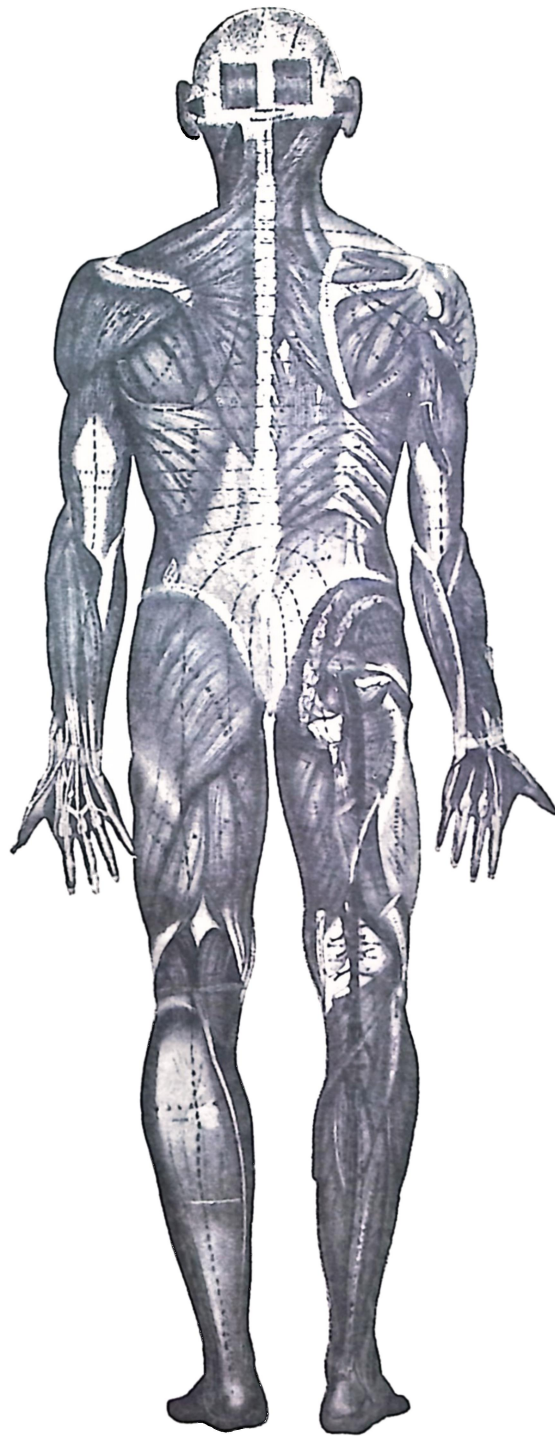
Name	Origin	Insertion	Function	Contained in myomere No.
Abductor hallucis.	Outer head of os calcis, plantar fascia, intermuscular septum; inner head, inter-nal-annular ligament, and tendon of tibialis posticus.	Inner portion of lower surface of base of great toe, and inner side of internal sesamoid bone.	Flexes and abducts first phalanx of great toe.	23 24 25
Abductor longus Pollicis.	See <i>Extensor ossis metacarpi pollicis</i> .			
Abductor minimi digiti.	Pisiform bone.	First phalanx of the little finger.	Abducts the little finger.	6
Abductor minimi digiti.	Outer tuberosity, os calcis and plantar fascia.	First phalanx of the little toe.	Adducts the little toe.	8 24 25
Abductor pollicis magnus.	Trapezium, scaphoid, annular ligament, palmar fascia.	First phalanx of the thumb.	Abducts and flexes first phalanx of thumb.	6 8
Abductor pollicis pedis.	Inner tuberosity, os calcis.	First phalanx of great toe.	Abducts the great toe.	24 25
Accelerator urinæ.	Central tendon of perineum and medium raphe.	Bulb, spongy and cavernous part of the penis.	Ejects the urine.	22 23
Adductor brevis.	Ramus of the pubes.	Upper part of the linea aspera of the femur.	Adducts and flexes the thigh.	22 23
Adductor hallucis.	Tarsal ends of the three middle metatarsal bones.	Base of the first phalanx of great toe.	Adducts great toe.	22 23 24
Adductor longus.	Front of the pubes.	Middle of the linea aspera of the femur.	Adducts and flexes the thigh.	22 23
Adductor magnus.	Rami of the pubes and ischium	All of the linea aspera of the femur.	Adducts the thigh and rotates it outward.	22 23
Adductor minimus.	A name for the upper portion of the adductor magnus.			



An anterior, schematically arranged, view of the myomeres, superficial and deep.

Name	Origin	Insertion	Function	Contained in myomere No.
Adductor pollicis.	Third metacarpal.	First phalanx of the thumb.	Draws the thumb to the median line.	6
Anconeus.	Back of the external condyle of the humerus.	Olecranon and the shaft of the ulna.	Extends the forearm.	8
Antiragus.	Outer surface of antiragus.	Caudate process.		6
Arrectores pili.	Pars papillaris of the skin.	Hair-follicles.		8
Arytenoepiglottideus inferior.	Arytenoid (anteriorly).	Epiglottis.	Elevate the hair of the skin.	
Arytenoepiglottideus superior.	Apex of the arytenoid cartilage.	Arytenoepiglottidean folds.	Compresses the sacculle of the larynx.	13
Arytenoideus.	Posterior and outer border of one arytenoid.	Back of the other arytenoid.	Constricts the aperture of the larynx.	13
Attollens aurem.	Occipitofrontalis aponeurosis.	Pinna.	Closes the back part of the glottis.	13
Attrahens aurem.	Lateral cranial aponeurosis.	Helix.	Elevates the pinna.	1 2
Azygos uvulæ.	Posterior nasal spine of the palate bone.	Uvula.	Advances the pinna.	1 2
Biceps (2 heads).	1. Long—Glenoid cavity. 2. Short—Coracoid process.	Tuberosity of the radius.	Raises the uvala.	13
Biceps (2 heads).	1. Ischial tuberosity. 2. Linea aspera.	Head of the fibula.	Flexes and supinates the forearm.	6
Biventer cervicis.	Transverse process of 2-4 upper dorsal.	Superior curved line of the occipital bone.	Flexes and rotates the leg outward.	21
Brachialis anticus.	Lower half of the shaft of the humerus.	Coronoid process of the ulna.	Retracts and rotates the head.	22
			Flexes the forearm.	2
				4
				6
				8

Name	Origin	Insertion	Function	Contained in myomere No.
Buccinator.	Alveolar process of the maxillary bones and pterygomaxillary ligament. See <i>Accelerator urinae</i> . See <i>Constrictor superior</i> . Angles of the five upper ribs.	Orbicularis oris.	Compresses the cheeks, retracts angle of mouth.	4
Bulbocavernosus.				
Cephalopharyngeal.				
Cervicalis ascendens.				
Ciliary.	1. <i>Longitudinal</i> portion (Brucke's m), junction of cornea and sclera; 2. <i>Circular</i> portion (Muller's m.); the fibres form a circle. The dorsal part of the sternocleidomastoid. Ischial spine.	Transverse processes of 4th, 5th and 6th cervical. 1. Outer layers of choroid. 2. Ciliary processes.	Keeps the neck erect. The muscles of visual accommodation.	13
Cleidomastoidens.				
Coccygeus.		Coccyx, sacrum and sacro-coccygeal lig.	Supports the coccyx; closes the pelvic outlet.	
Complexus.	Transverse process 7th cervical and upper dorsal, and articular processes of 3d to 6th cervical.	Occipital bone.	Retracts and rotates the head.	4
Compressor narium.	Nasal aponeurosis.		Compresses the nostril.	4
Compressor narium.	Alar cartilage.	Fellow muscle.	Dilates the nostril.	4
Compressor saculi laryngis.	Fibres of the aryteno-epiglottideus.	Skin at the end of nose.	Compressor of sacculae of larynx.	



A posterior, schematically arranged, view of the myomeres, superficial and deep.

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Compressor urethræ.	Ramus of pubes.	Fellow muscle.	Compresses the urethra.	21
Compressor vaginæ.	The analog of the two bulbocavernosi of the male.		Compresses the vagina.	22
Compressor venæ.	Fibres of the ischiocavernosus.	Facial sheath of penis, over dorsal vessels.	Compressor of dorsal vein.	21
Constrictor of pharynx (inferior).	Cricoid and thyroid cartilages.	Pharyngeal raphe.	Contracts the pharyngeal caliber.	13
Constrictor of pharynx (middle).	Cornua of the hyoid and the stylohyoid ligament.	Pharyngeal raphe.	Contracts the pharyngeal caliber.	13
Constrictor of pharynx (superior).	Internal pterygoid plate, pterygo-max. lig., the jaw and side of tongue.	Pharyngeal raphe.	Contracts the caliber of pharynx.	13
Coracobrachialis	Coracoid process of scapula.	Inner side of the shaft of the humerus.	Draws the arm forward and inward	6
Corrugator cutis ani.	Submucous tissue on interior of anus.	Subcutaneous tissue on opposite side of anus.	Corrugates the skin about anus.	8
Corrugator supercili.	Superciliary ridge of frontal bone.	Orbicularis palpebrarum.	Draws the eyebrow downward and inward.	23
Cremaster.	Upper and deep surface of middle of Poupart's ligament.	Spine and crest of pubic bone and fascia propria.	Elevates testicle.	24
Cricarytenoideus lateralis.	Side of the cricoid cartilage.	Angle and external surface of the arytenoid.	Closes the glottis.	13
Cricarytenoideus posticus.	Back of the cricoid cartilage.	Base of the arytenoid cartilage.	Opens the glottis.	13

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Cricothyroid.	Cricoid cartilage. See <i>Vastus externus</i> .	Thyroid cartilage (lower inner border)	Makes the vocal bands tense.	13
Crueus.	Clavicle, acromion and the spine of the scapula.			
Depressor alæ nasi.	Incisive fossa of the superior maxillary.	Shaft of humerus.	Adducts the humerus.	6
Depressor anguli oris.	External oblique line of the inferior maxillary.	Septum and ala of the nose.	Contracts the nostril.	8
	Those fibres of thyroepiglottideus that are continued forward to the margin of the epiglottis.	Angle of the mouth.	Facial; supramaxillary branch.	4
Depressor labii inferioris.	Ext. obl. inf, maxillary.			4
Depressor urethra.		Lower lip.	Depresses the lip.	4
Detrusor urinæ.	Ramus of Ischium near deep transverse perinei.	Fibres of constrictor vaginæ muscle.		22
Diaphragm.	Front of pubes.	Prostate (in male), vagina (in female).	Compresses bladder	23
	Ensiform cartilage, 6 or 7 lower ribs, ligamenta arcuata, bodies of the lumbar vertebra.	Central tendon.	Respiration and expulsion.	15 18
Digastric (anterior belly).	Inner surface inf, maxillary, near symphysis.	Hyoid bone.	Elevates the hyoid and the tongue.	13
Digastric (posterior belly).	Digastric groove of the mastoid process.	Hyoid bone.	Elevates the hyoid and tongue.	13

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Dilator naris anterior.	Alar cartilage.	Border of the ala.	Dilates the nostril.	4
Dilator naris posterior.	Nasal notch of the superior maxillary.	Skin at the margin of the nostril.	Dilates the nostril.	4
Dorsal interossei, 4.	Sides of the metacarpal bones.	Bases of the phalanges.	Abduct the fingers from the median line.	6
Dorsal interossei, 4.	Sides of the metatarsal bones.	Base of the first phalanx of the corresponding toe.	Abduct the toes.	8
Erector clitoridis.	Tuberosity of ischium.	Each side of crus of clitoris.	Erects clitoris	23
Erector penis.	Ischial tuberosity, crus penis and pubic ramus.	Tunica albuginea of cavernosum.	To maintain erection.	23
Erector pili.	See <i>Arrectores pili</i> .			24
Erector spinæ.	Iliac crest, back of all the sacrum, lumbar, and three lower dorsal spines.	Divides into the sacrolumbalis and longissimus dorsi, and spinalis dorsi.	Extension of lumbar spines on pelvis.	21
Extensor brevis digitorum.	Os Calcis, externally.	First phalanx of the great toe and the tendons of the extensor longus.	Extends the toes.	23
Extensor brevis hallucis.	A name for that portion of the extensor brevis digitorum that goes to the great toe.			24
Extensor brevis pollicis.	See <i>Extensor primi internodii pollicis</i> .			25
Extensor carpi radialis brevior.	External condyloid ridge of the humerus.	Base of the third metacarpal bone.	Extends the wrist.	6
Extensor carpi radialis longior.	Lower 1-3 external condyloid ridge of humerus.	Base of the second metacarpal bone.	Extends the wrist.	8

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Extensor carpi ulnaris (first head).	External condyle of humerus (second head), posterior border of ulna.	Base of the fifth metacarpal.	Extends the wrist.	6
Extensor coccygis.	Last bone of the sacrum or first of the coccyx.	Lower part of the coccyx.	Extends the coccyx.	8
Extensor communis digitorum.	External condyle of the humerus.	All of the second and third phalanges.	Extends the fingers.	26
Extensor indicis.	Back of the ulna.	Second and third phalanges of the index.	Extends the index.	6
Extensor longus digitorum.	Outer tuberosity of the tibia and shaft of fibula.	Second and third phalanges of the toes.	Extends the toes.	8
Extensor minimi digiti.	External condyle of the humerus.	Second and third phalanges of the little finger.	Extensor of the little finger.	6
Extensor ossis metatarsi hallucis (<i>anomalous</i>)	Extensor proprius hallucis, or extensor communis digitorum, or tibialis anticus.	Metatarsal bone of hallux.		8
Extensor ossis metacarpi pollicis.	Back of the radius and the ulna.	Base of the metacarpal bone of the thumb.	Extends the thumb.	6
Extensor primi interodii pollicis.	Back of the radius.	Base of the first phalanx of the thumb.	Extends the thumb.	8
Extensor proprius hallucis.	Middle of the fibula.	Base of the last phalanx of the great toe.	Extends the toe.	6
Extensor proprius minimi digiti.	Lower part of ulna, or posterior ligament of wrist-joint.	Base of the first phalanx of little finger.	Extends little finger.	22
Extensor secundi interodii pollicis.	Back of the ulna.	Base of the phalanx of the thumb.	Extends the thumb.	24
				6
				8

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Flexor accessorius digitorum (<i>2 heads</i>).	1. Inner; 2. Outer surface of the os calcis.	Tendon of the flexor longus digitorum.	Accessory flexor of the toes.	22 24
Flexor accessorius longus digitorum.	Shaft of tibia or fibula.	Tubercle of os calcis, and joins tendon of long flexor.	Assists in flexing toes.	22
Flexor brevis digitorum.	Inner tuberosity of the os calcis and plantar.	Second phalanges of the lesser toes.	Flexes the lesser toes.	24 22
Flexor brevis hallucis.	Under surface of cuboid, plantar ligaments, and external cuneiform.	Base of the first phalanx of great toe.	Flexes and slightly adducts first phalanx of great toe.	24 22 24
Flexor brevis minimi digiti.	Unciform bone and annular ligament.	First phalanx of the little finger.	Flexes the little finger.	6
Flexor brevis minimi digiti.	Base of the fifth metatarsal bone.	Base of the first phalanx of the little toe.	Flexes the little toe.	8 22
Flexor brevis pollicis.	Trapezium, trapezoid, os magnum, base of the third metacarpal bone.	Base of the first phalanx of the thumb.	Flexes the thumb.	24 22 24
Flexor brevis pollicis.	See <i>Flexor brevis hallucis</i> .			
Flexor carpi radialis.	Internal condyle.	Metacarpal bone of index.	Flexes the wrist.	6 8
Flexor carpi ulnaris (<i>2 heads</i>).	1. Internal condyle. 2. Olecranon and ulna.	Fifth metacarpal annular ligament and pisiform bone.	Flexes the wrist.	6 8
Flexor indicis.	The name given to the indicial	portion of the flexor profundus	us digitorum when it is distinct.	22
Flexor longus digitorum.	Shaft of the tibia.	Last Phalanges of the toes.	Flexes the phalanges and extends the toes.	22 24

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Flexor longus hallucis.	Lower two-thirds of the shaft of the fibula.	Last phalanx of great toe.	Flexes the great toe.	22
Flexor longus pollicis.	Shaft of the radius.	Last phalanx of thumb.	Flexes the phalanx.	24
Flexor profundus digitorum.	Shaft of the ulna.	Last phalanges by four tendons.	Flexes the phalanges.	24
Flexor sublimis digitorum (3 heads).	1. Inner condyle. 2. Coronoïd process. 3. Oblique line of the radius.	Second phalanges by four tendons.	Flexes second phalanges.	6
Gastrocnemius (2 heads).	Condyles of the femur.	Os calcis by tendo Achillis.	Extends the foot.	8
Gemellus inferior.	Tuberosity of ischium.	Great trochanter.	External rotator of thigh.	22
Gemellus superior.	Ischial spine.	Great trochanter.	External rotator of thigh.	21
Geniohyoglossus.	Superior genial tubercle of inferior maxillary.	Hyoid and inferior surface of the tongue.	Retracts and protrudes the tongue.	13
Geniohyoid.	Inferior genial tubercle of the inferior maxillary.	Body of the hyoid bone.	Elevates and advances the hyoid.	13
Gluteus maximus.	Superior curved iliac line and crest, sacrum and coccyx.	Fascia and femur below the great trochanter.	Extends, abducts, and rotates the thigh outward.	21
Gluteus medius.	Ilium between middle and int. curved lines.	Oblique line of the great trochanter.	Rotates, abducts and advances the thigh.	22
Gluteus minimus.	Ilium between middle and int. curved lines.	Great trochanter.	Rotates, abducts and draws the thigh forward.	21

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Gracilis.	Rami of the pubes and ischii.	Tibia, upper and inner part.	Flexes and abducts the leg.	21 22
Gubernaculum testis.	See <i>Cremaster</i> .			
Hilicis major et minor.	Tubercle on helix.	Rim of helix near the summit.		
Hyoglossus.	Cornea of the hyoid bone.	Side of the tongue.	Depresses the side of the tongue.	13
Iliacus.	Iliac fossa, crest, base of the sacrum.	Lesser trochanter.	Flexes and rotates the femur outward.	21 22
Iliocostal.	See <i>Sacrohumbar</i> .			
Iliopsoas.	The iliacus and psoas muscle	considered as one muscle.		
Infracostals, 10.	Inner surface of the ribs.	Inner surface of two or three ribs below.	Expiration and by depressing ribs.	17
Infraspinatus.	Infraspinous fossa.	Great tuberosity of the humerus.	Rotates the humerus outward.	6 8
Interarytenoid.	One arytenoid cartilage.	The other arytenoid cartilage.	Approximates arytenoid cartilages.	13
Intercostals, external, 11.	Outer lip of the inferior costal border.	Superior border of the ribs above.	Raise the ribs in inspiration.	18
Intercostals, internal, 11.	Inner lip of the inferior costal border.	Superior border of the ribs below.	Depress the ribs in expiration.	18
Interossei of foot, dorsal, 4.	Adjacent surfaces of metatarsal bones.	Bases of first phalanges.	Abduct from the middle line of the second toe.	22 24
Interossei of foot, plantar, 3.	Inner lower surface of three outer metatarsal bones.	Bases of first phalanges of three outer toes.	Adducts the outer three toes.	22 24

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Interossei of hand, dorsal, 4.	Five metacarpal bones.	Sides of aponeurosis of extensor communis.	Abduct index, middle, and ring fingers.	6
Interossei of hand, palmar, 3.	Sides of metacarpal bones.	Aponeurosis of extensor tendons.	Abduct index, ring, and little fingers.	8
Interspinales.	Between the spines of contiguous vertebrae.			6
Intertransversales.	Between the transverse processes of contiguous vertebrae.			8
Ischiocavernosus.	See <i>Erector penis</i> .			
Latissimus dorsi.	Spines of 6 lower dorsal and lumbar and sacral vertebrae, crest of ileum, and 3 or 4 lower ribs.	Bicipital groove of the humerus.	Draws the arm backward and downward and rotates it inward.	22 24
Latissimus dorsi.				4
Laxator tympani.	Spinous processes of the sphenoid and tube.	Neck of the malleus.	Relaxes the membrana tympani.	4
Levator anguli oris.	Canine fossa of the superior maxillary.	Angle of the mouth.	Elevates the angle of the mouth.	4
Levator anguli scapulæ.	Transverse processes of the four upper cervical.	Posterior border of the scapula.	Elevates the upper angle of the scapula.	8
Levator ani.	Posterior body and ramus of the pubes, pelvic fascia, ischial spine.	Rectum, coccyx and fibrous raphe.	Supports the rectum, vagina, etc.	21 22
Levator labii inferioris.	Incisive fossa of the inferior maxillary.	Skin of the lower lip.	Elevates the lower lip.	4
Levator labii superioris.	Lower margin of orbit.	Upper lip.	Elevates the lip.	4

Local

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Levator labii superioris alæque nasi.	Nasal process of the superior maxillary.	Alar cartilage and the upper lip.	Elevates the lip, dilates the nostril.	4
Levator menti.	See <i>Levator labii inferioris</i> .			
Levator palati.	Petrous portion of the temporal bone.	Soft palate.	Elevates the soft palate.	13
Levator palpebræ superior.	Lesser wing of sphenoid.	Upper tarsal cartilage.	Lifts the upper lid.	4
Levatores costarum, 12.	Transverse processes of last cervical and dorsal vertebrae.	Each to the rib below.	Raise ribs.	19
Lingualis.	Under surface of tongue.			
Longissimus dorsi.	Erector spinæ.		Elevates center of the tongue.	13
Longus colli:				
1. Superior oblique portion.	Transverse processes of the 3d-5th cervical.	Transverse processes of the lumbar and dorsal vertebrae and 7th-11th ribs.	Erects the spine and bends the trunk backward.	17 18
2. Inferior oblique portion.	Bodies of 1st-3d dorsal vertebrae.	Anterior tubercle of the atlas.	Flexes the cervical vertebrae.	4 5
3. Vertical portion.	Bodies of 3 dorsal and 2 cervical vertebrae.	Transverse processes of the 5th-6th cervical.		6 6
Lumbicales, 4.	Tendons of the deep flexor.	Bodies of 2d-4th cervical vertebrae.		
Lumbicales, 4.	Tendons of the deep flexor.	Tendons of the common extensor.	Flex the first phalanges.	6 8
Masseter.	Tendons of the flexor longus.	First phalanges of the lesser toes.	Accessory flexors.	22 23
Midriff.	Zygomatic arch. See <i>Diaphragm</i> .	Angle and ramus of the jaw.	Muscle of mastication.	4

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Multifidus spinæ.	Sacrum, iliac spine, articular process, lumbar and cervical vertebrae, and transverse processes of dorsal and 7th cervical.	Laminas and spines from last lumbar to second cervical vertebrae.	Erects and rotates the spinal column.	10-11
Musculus accessorius adsacrolumbalem.	Angles of the six lower ribs.	Angles of the six upper ribs.	Erects the spine and bends the trunk backward.	9
Mylohyoid.	Mylohyoid ridge of the inferior maxillary.	Body of the hyoid and the raphe.	Elevates and advances the hyoid.	13
			Forms the floor of the mouth.	
Nasolabialis.	Nasal Septum.	Upper lip.	Connects upper lip to the septum of the nose.	4
Obliquus auris.	Concha of ear.	Fossa of antihelix.		1
Obliquus capitis inferior.	Spinous process axis.	Transverse process atlas.	Rotates atlas and cranium.	1
Obliquus capitis superior.	Trans. process atlas.	Occipital bone.	Draws the head backward.	1
Obliquus externus.	Eight lower ribs.	Middle line, iliac crest, Poupert's ligament.	Compresses the viscera. and flexes the throat.	15
Obliquus inferior.	Orbital plate of the superior maxillary.	Sclerotic.	Rotates the eyeball upward and outward.	13
Obliquus internus.	Lumbar fascia, iliac crest, Poupert's ligament.	Six lower ribs, linæ alba, pubic crest, pectineal line.	Compresses the viscera, and flexes the throat, and assists in expiration.	15

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Obliquus superior	Above the optic foramen, thru the pulley.	Sclerotic.	External rotator of the thigh.	13
Obturator externus.	Obturator foramen and membrane.	Digital fossa at base of the great trochanter.	External rotator of thigh.	21
Obturator internus.	Obturator foramen and membrane.	Great trochanter.	External rotator of thigh.	22
Occipitalis or occipitofrontalis.	Superior curved line of occiput and angular process of frontal bone.	Aponeurosis.	Moves the scalp.	1
Omohyoid.	Upper border of the scapula.	Body of the hyoid.	Facial expression.	13
Opponens minimi digiti.	Unciform bone.	Fifth metacarpal.	Depresses and retracts the hyoid bone.	13
Opponens pollicis.	Trapezium.	Metacarpal of the thumb.	Flexes the thumb.	4
Orbicularis oris.	Nasal septum and canine fossa of inferior maxilla, by accessory fibers.	Forms the lips and the sphincter of the mouth.	Closes the mouth.	4
Orbicularis palpebrarum.	Internal margin of orbit.	Outer margin of the orbit.	Closes the eyelids.	13
Palatoglossus.	Soft palate.	Side and dorsum of the tongue.	Constricts the fauces.	13
Palatopharyngeus.	Soft palate.	Thyroid cartilage and pharynx.	Closes the posterior nares.	4
Palmaris brevis.	Annular ligament and palmar fascia.	Skin of the palm of the hand.	Corrugates the skin of the palm.	6
Palmaris interossei.	Palmar surfaces of the second, fourth, and fifth metacarpals.	Bases of the first phalanges of corresponding fingers.	Adductors of the fingers.	6 8

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Palmaris longus.	Internal condyle of humerus.	Annular ligament and palmar fascia.	Renders the palmar fascia tense.	6
Pectineus.	Iliopectineal line and pubes.	Femur below the lesser trochanter.	Flexes the thigh and rotates it outward.	8 22
Pectoralis major.	Clavicle, sternum, and costal cartilages.	External bicipital ridge of the humerus.	Draws the arm down and forward.	6
Pectoralis minor.	Third, fourth, and fifth ribs.	Coracoid process.	Depresses the point of the shoulder.	8 11
Peroneus brevis.	Middle third of the shaft of the fibula externally.	Base of the 5th metatarsal bone.	Extends the foot.	22
Peroneus longus.	Head and shaft of the fibula.	First metatarsal of the great toe.	Extends and everts the foot.	23 23
Peroneus tertius.	Lower fourth of fibula.	Fifth metatarsal bone.	Flexes the tarsus.	24
Plantaris.	Outer bifurcation of the lineæ aspera and posterior ligament of the knee.	Os calcis by means of the achilles tendon.	Extends the foot.	23 24
Plantaris interossei.	Shafts of the third, fourth, and fifth metatarsal bones.	Base of the first phalanges of corresponding toes.	Adducts the toes.	23
Platysma myoides.	Clavicle, acromion, and fascia.	Inferior maxillary, angle of the mouth.	Wrinkles the skin and depresses the mouth.	24 4
Popliteus.	External condyle of the femur.	Shaft of the tibia above the oblique line.	Flexes the leg.	23 24
Pronator quadratus.	Lower fourth of the ulna.	Lower fourth of shaft of radius.	Pronates the hand.	6 8
Pronator radii teres.	Internal condyle and coronoid process.	Outer side of the shaft of the radius.	Pronates the hand.	6 8

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Psoas magnus.	Bodies and transverse processes, last dorsal and all lumbar vertebrae.	Lesser trochanter.	Flexes and rotates the thigh outward, and flexes the trunk on the pelvis.	21 and 22
Psoas parvus.	Bodies of last dorsal and first lumbar vertebrae.	Iliopectinal eminence and iliac fascia.	Flexes pelvis upon abdomen.	20 and 21
Pterygoid. (external).	Two heads. External pterygoid plate of sphenoid, great wing of sphenoid.	Neck of the condyle of lower jaw.	Draws the inferior maxillary forward.	4
Pterygoid. (internal).	Pterygoid fossa of the sphenoid bone.	Inner surfaces of the angle of the jaw.	Raises and draws the inferior maxillary forward.	4
Pyramidalis.	Pubes.	Linea alba.	Renders the linea alba tense.	16
Pyramidalis nasi.	Occipitofrontalis.			
Pyriformis.	Front of sacrum, thru great sciatic foramen.	Compressor naris. Great trochanter.	Depresses the eyebrow. External rotator of the thigh.	4
Quadratus Femoris	Tuberosity of the ischium.			
Quadratus lumborum.	Crest of the ilium, transverse processes of lower three lumbar vertebrae.	Quadrate line of femur.	External rotator of the thigh.	21 and 22
Quadriceps extensor.	Includes the rectus, vastus int. and ext. and crureus muscles.	Last rib, transverse processes of the last three lumbar vertebrae. Common tendon contains the patella.	Flexes the thorax laterally.	19
Rectus Abdominis.	Public crest.	Cartilages of the fifth to seventh ribs.	Compresses the viscera and flexes the thorax.	16 and 17

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Rectus capitis anticus major.	Transverse processes third to sixth cervical.	Basilar process of occipital bone.	Flexes the head and slightly rotates it.	4
Rectus capitis anticus minor.	Transverse process and lateral mass of the atlas.	Basilar process of occipital bone.	Flexes the head.	4
Rectus capitis lateralis.	Ventral cephalic surface of lateral mass of atlas.	Jugular process of occipital bone.	Flexes head laterally.	2
Rectus capitis posterior-major.	Spine of the axis.	Inferior curved line of the occipital bone.	Rotates the head.	1
Rectus capitis posterior-minor.	Posterior arch of the atlas.	Below the inferior curved line of the occipital bone.	Draws the head backward.	1
Rectus externus.	Two heads, outer margin of the optic foramen.	Sclerotic coat of the eyeball.	Rotates the eyeball outward.	13
Rectus Femoris.	Anterior inferior iliac spine, brim acetabulum.	Proximal border of patella.	Extends the leg.	20
Rectus inferior.	Lower margin of the optic foramen.	Sclerotic coat of the eyeball.	Rotates the eyeball downward.	21
Rectus internus.	Lower margin of the optic foramen.	Sclerotic coat of the eyeball.	Rotates the eyeball inward.	13
Rectus superior.	Upper margin of the optic foramen.	Sclerotic coat of the eyeball.	Rotates the eyeball inward.	13
Retrahens aurum.	Mastoid process.	Concha.	Retracts the pinna.	1
Rhomboideus major.	Spines of the five upper dorsal vertebrae.	Root of the spine of the scapula.	Elevates and retracts the scapula.	9
Rhomboideus minor.	Spines of the seventh cervical and first dorsal.	Root of the spine of the scapula.	Retracts and elevates the scapula.	9
Risorius.	I'ascia over the masseter.	Angle of the mouth.	Draws out the angle.	4

Name.	Origin.	Insertion.	Function.	Contained in myomere No. lo-cal.
Rotatores spinæ.	Transverse processes of the 2d to 12th dorsal.	Lamina of the next dorsal above.	Rotates the spinal column.	
Sacrolumbalis.	Erector spinæ.	Angles of the six lower ribs.	Erects the spine and bends the trunk backward.	15
Sartorius.	Ant. Sup. spine ilium.	Upper int. shaft of tibia.	Flexes and crosses legs	22
Scalenus anticus.	Tubercle on first rib.	Transverse processes third to sixth cervical.	Flexes the neck laterally.	5
Scalenus medius.	First rib.	Transverse processes third to sixth lower cervical.	Flexes the neck laterally.	5
Scalenus posticus.	Second rib.	Transverse processes of three lower cervical.	Bends the neck laterally.	5
Semimembranosus.	Tuberosity of the ischium.	Inner tuberosity of the tibia.	Flexes the leg and rotates it inward.	22 23
Semispinalis colli.	Transverse processes four upper dorsal and articular processes four lower cervical vertebrae.	Spines of the second to fifth cervical vertebrae.	Erects the spinal column.	6 7
Semispinalis dorsi.	Transverse processes sixth to tenth dorsal vertebrae.	Spines last two cervical and first four thoracic.	Erects the spinal column.	7 8
Semitendinosus.	Tuberosity of the ischium.	Upper and inner surface of the tibia.	Flexes the leg on the thigh.	23
Serratus magnus.	Eight upper ribs.	Inner margin posterior border of the scapula.	Elevates the ribs in inspiration.	14
Serratus posticus inferior.	Spines of last dorsal and first three lumbar.	Four lower ribs.	Tenth and eleventh intercostal.	14

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Serratus posticus superior.	Spines of seventh cervical and two upper dorsal.	Second, third, fourth and fifth ribs.	Posterior branches of the cervical.	14
Soleus.	Shaft of the fibula, oblique line of the tibia.	Os calcis by the tendon Achilles.	Extends the foot.	22
Sphincter ani, external.	Tip of the coccyx.	Tendinous center of the perineum.	Closes the anus.	24
Sphincter ani, internal.	A thickening of the circular fibers of the intestine an inch above the anus.		Constricts rectum.	24
Sphincter vaginæ.	Central tendon of the perineum.	Corpora cavernosa and clitoris		
Sphincter vesicæ internus.	Near the urethral orifice of the bladder.		Constricts internal orifice of urethra.	23
Spinalis cervicis (normal, but inconstant).	Spines fifth, sixth and seventh cervical, and first two thoracic vertebrae.	Spine of axis, sometimes spine of third and fourth cervical vertebrae.		
Spinalis colli.	Spines of the fifth and sixth cervical vertebrae.	Spine of axis, or third and fourth cervical spines.	Steadies the neck.	5
Spinalis dorsi.	Last dorsal and first two lumbar spines.	Remaining dorsal spines.	Erects the spinal column.	19
Splenius capitis.	Lower two-thirds of ligamentum nuchæ, spines of seventh cervical and first two thoracic vertebrae.	Outer third of middle line of occiput and outer surface of mastoid process.	Extends head and neck and rotates and flexes laterally.	5
Splenius colli.	Spines of third to sixth thoracic vertebrae.	Dorsal tubercles of transverse processes of upper three or four cervical vertebrae.	Extends, flexes laterally and rotates neck.	12

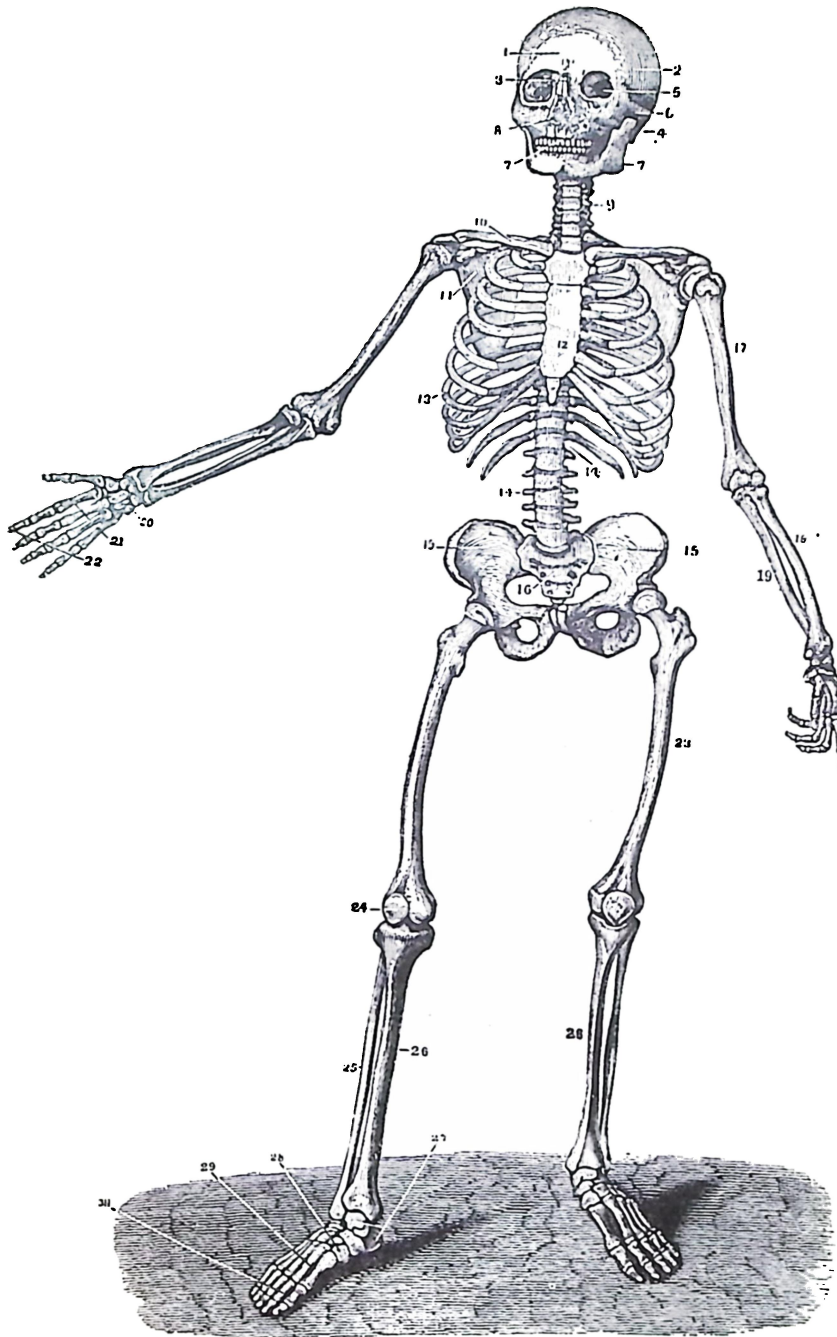
Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Stapedius.	Interior of pyramid.	Neck of the stapes.	Depresses base of the stapes.	2
Sternocleidomastoid	Two heads, sternum and clavicle.	Mastoid process.	Depresses and rotates the head.	2
Sternohyoid.	Sternum and the clavicle.	Hyoid bone.	Depresses the hyoid.	13
Sternothyroid.	Sternum and the cartilage of the first rib.	Side of the thyroid cartilage.	Depresses the larynx.	13
Styloglossus.	Styloid process.	Side of the tongue.	Elevates and retracts the tongue.	13
Stylohyoid.	Styloid process.	Body of the hyoid.	Draws hyoid up and back.	13
Stylopharyngeus.	Styloid process.	Thyroid cartilage.	Elevates the pharynx.	13
Subanconeus.	Humerus above the olecranon fossa.	Posterior ligament of the elbow.	Tensor of the ligament.	
Subclavius.	Cartilage of the first rib.	Under surface of clavicle.	Draws clavicle downward.	8
Subcrureus.	Anterior distal part of the femur.	Synovial sac behind the patella.	Draws the sac up.	22
Subscapular.	Inner surface of scapula.	Lesser tuberosity of the humerus.	Rotates the head of the humerus inward.	6
Supinator longus.	External condyloid ridge of the humerus.	Styloid process of the radius.	Flexes and supinates the forearm.	8
Supinator radii brevis.	Ext. condyle of humerus, oblique line of ulna.	Neck of the radius and its bicipital tuberosity.	Supinates the hand.	6
Supraspinales.	Lie on the spinous processes in the cervical region.			8

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Supraspinatus.	Supraspinous fossa.	Greater tuberosity of the humerus.	Supports the shoulder-joint, raises the arm.	5 9
Temporal.	Temporal fossa and fascia.	Coronoid process of the inferior maxillary.	Brings the incisor teeth together.	4
Tensor palati.	Scaphoid fossa and alar spine of sphenoid.	About the hamular process into the soft palate.	Renders the palate tense.	13
Tensor tarsi.	Crest of lacrimal bone.	Tarsal cartilages.	Compresses the puncia and the lacrimal sac.	5
Tensor tympani.	Temporal bone. Eustachian tube and canal.	Handle of the malleus.	Renders tense the membrana tympani.	2
Tensor vaginæ femoris.	Iliac crest and anterior sup. spinous process.	Fascia lata.	Tensor of the fascia lata.	4
Teres major.	Inferior angle of the scapula.	Internal bicipital ridge of the humerus.	Draws the arm down and back.	6 8
Teres minor.	Axillary border of the scapula	Great tuberosity of the humerus.	Rotates the humerus outward and adducts it.	6 8
Thyroarytenoideus.	Thyroid and the cricothyroid membrane.	Arytenoid, inferior and anterior surface.	Relaxes the vocal bands.	13
Thyroepiglottideus.	Inner surface of thyroid.	Epiglottis.	Depresses the epiglottis	13
Thyrohyoid.	Side of the thyroid cartilage.	Body and greater cornu of the hyoid.	Elevates the larynx.	13
Tibialis anticus.	Outer tuberosity and upper part of the shaft of the tibia.	Internal cuneiform and first metatarsal bones.	Flexes the tarsus and elevates the inner border of the foot.	22 24
Tibialis posticus.	Shaft of the fibula and tibia.	Tuberosity of scaphoid and internal cuneiform.	Extends the tarsus and inverts the foot.	22 24

Name.	Origin.	Insertion.	Function.	Contained in myomere No.
Trachelomastoid.	Transv. proc. of 3d-6th dorsal, and artic. proc. of 3 or 4 lower cervical.	Mastoid process.	Steadies the head.	2
Tragicus	Tragus.	Tragus.	Temporal and posterior articular.	
Transversalis abdominalis.	Poupart's ligament, iliac crest, six lower ribs, lumbar vertebrae.	Linea alba, pubic crest, pectineal line.	Compresses the viscera and flexes the thorax.	17
Transversalis colli.	Transverse processes of third to sixth dorsal.	Transverse processes of the five lower cervical.	Keeps the neck erect.	4
Transversus auris.	Convexity of chonca.	Convexity over groove of helix.	Retracts helix.	1
Transversus pedis.	Head of fifth metatarsal.	First phalanx great toe.	Adducts the great toe.	22 24
Transversus perinei.	Ramus of the ischium.	Central tendon.	Tensor of the central tendon.	23
Transversus perinei, deep. Trapezius.	See <i>Compressor urethrae</i> . Superior curved line of the occipital, spinous processes, last cervical and all dorsal vertebrae.	Clavicle and spine of the scapula, and the acromion.	Draws the head backward.	5
Triangularis sterni.	Ensiform cartilage, costal cartilages of the 3 or 4 lower true ribs, and the sternum.	Border of the inner surfaces of the second, third, fourth and fifth costal cartilages.	Expiration.	13

Name.	Origin.	Insertion.	Function.	Contained in myomer. No.
Triceps (3 heads).	External and internal near musculo-spiral groove, shaft of the humerus; middle or long, lower margin of the glenoid cavity.	Olecranon process of the ulna.	Extends the forearm.	6 8
Triticeoglossus.	Cartilago-triticea in the thyroid ligament.			
Trochlearis.	See <i>Obliquus superior</i> .			
Ulnaris.	Lower fourth of the anterior surface of the ulna.	Unciform bone.	Flexes the wrist	6 8
Ulnocarpus (anomalous).	Lower surface of ulna.	Annular ligament or one of the carpal bones.		
Uvularis.	See <i>Azygos uvulae</i>			
Vastus externus.	Ant. border great trochanter and linea aspera.	Tuberosity of the tibia.	Extends the leg.	22 24
Vastus internus and crureus.	Ant. border great trochanter and linea aspera.	Tuberosity of the tibia.	Extends the leg.	22 24
Zygomaticus major et minor.	Malar bone.	Angle of mouth.	Elevates the lip outward.	4

Oseo-mere—Osseous structures are in all zones of the body. The location of a definite diseased condition in a specific bone in one portion of the body will determine to an exactness the verte-mere in which will be the subluxation producing the same. In all meric considerations two portions must be united as one, two sections must be complete, the posterior half of the zone must meet with the anterior half, both must enter prominently—the causative mere (verte-mere) with the effected meres (derma-mere, mvo-mere, visce-mere, oseo-mere), etc. The boundary of one proves the lines of the other. With any given case where knowledge of cause or effect is had in any part of the body, regardless of whether verte-meric, dermameric, myo-meric, visce-meric or oseo-meric, it is an easy matter to immediately sum up its opposite. The knowledge of cause leads to the location of the effect every time or vice versa.



Front view of the adult skeleton: 1, frontal bone; 2, parietal bone; 3, nasal bones; 4, occipital bone; 5, orbit; 6, malar bone; 7, 7, upper and lower maxilla; 8, nasal cavity; 9, cervical vertebrae; 10, clavicle; 11, scapula; 12, sternum; 13, ribs; 14, 14, dorsal and lumbar vertebrae; 15, innominate bones; 16, sacrum; 17, humerus; 18, radius; 19, ulna; 20, carpus; 21, metacarpus; 22, phalanges of hand; 23, femur; 24, patella; 25, fibula; 26, tibia; 27, os calcis and astragalus; 28, cuneiform and cuboid bones; 29, metatarsus; 30, phalanges of toes.

Key to osseomeres as illustrated with skeleton and in what zone will be found the causative vertemere for affections of bones:

- | | |
|-----------------------------------------|-----------------------------|
| 1. 1st Vertemere. | 16. 23rd or 24th Vertemere. |
| 2. 1st " | 17. 8th or 9th Vertemere. |
| 3. 4th " | 18. " " " " |
| 4. 1st " | 19. " " " " |
| 5. 4th " | 20. " " " " |
| 6. 4th " | 21. " " " " |
| 7. 4th " | 22. " " " " |
| 8. 4th " | 23. 22nd " |
| 9. Per cut No. | 24. 23rd " |
| 10. 8th Vertemere. | 25. 23rd or 24th " |
| 11. 8th, 9th or 10th Vertemere. | 26. " " " " |
| 12. " " " " " | 27. " " " " |
| 13. According to number (See listings). | 28. 24th Vertemere. |
| 14. According to number. | 29. " " |
| 15. 22nd, 23rd or 24th Vertemere. | 30. " " |

Oseo-meric Table.

The Oseomeric Table comprises every bone in the body. We shall take them in regular order: 1st, Long Bones; 2nd, Short Bones, 3rd, Flat Bones; 4th, Irregular Bones.

1st—Long Bones.	4th—Irregular Bones.
Clavicle—6-8.	Vertebræ—
Humerus—6-8.	Atlas—1.
Radius—6-7.	Axis—1-2.
Ulna—6-8.	3rd C—2-3.
Femur—22-24.	4th C—3-4.
Tibia—22-24.	5th C—4-5.
Fibula—22-24.	6th C—5-6.
Metacarpal—6-8.	7th C—6-7.
Metatarsal—22-24.	1st D—7-8.
Phalanges (Sup.)—6-8.	2nd D—8-9.
Phalanges (Inf.)—22-24.	3rd D—9-10.
2nd—Short Bones.	4th D—10-11.
Carpus—6-8.	5th D—11-12.
Tarsus—22-24.	6th D—12-13.
3rd—Flat Bones.	7th D—13-14.
Occipital—1.	8th D—14-15.
Parietal—1.	9th D—15-16.
Frontal (Bones of the Cranium)—1.	10th D—16-17.
Nasal—4.	11th D—17-18.
Lachrymal—4.	12th D—18-19.
Vomer—4.	1st L—19-20.
Scapula—7-8.	2nd L—20-21.
Os Innominatum—22-25.	3rd L—21-22.
Sternum (Sup.)—11.	4th L—22-23.
Sternum (Center)—14.	5th L—23-24.
Sternum (Inf.)—16.	Sacrum—24.
Ribs—according to location.	Coccyx—24.
viz: 1st, 8th zone, 2nd,	
9th, etc.	

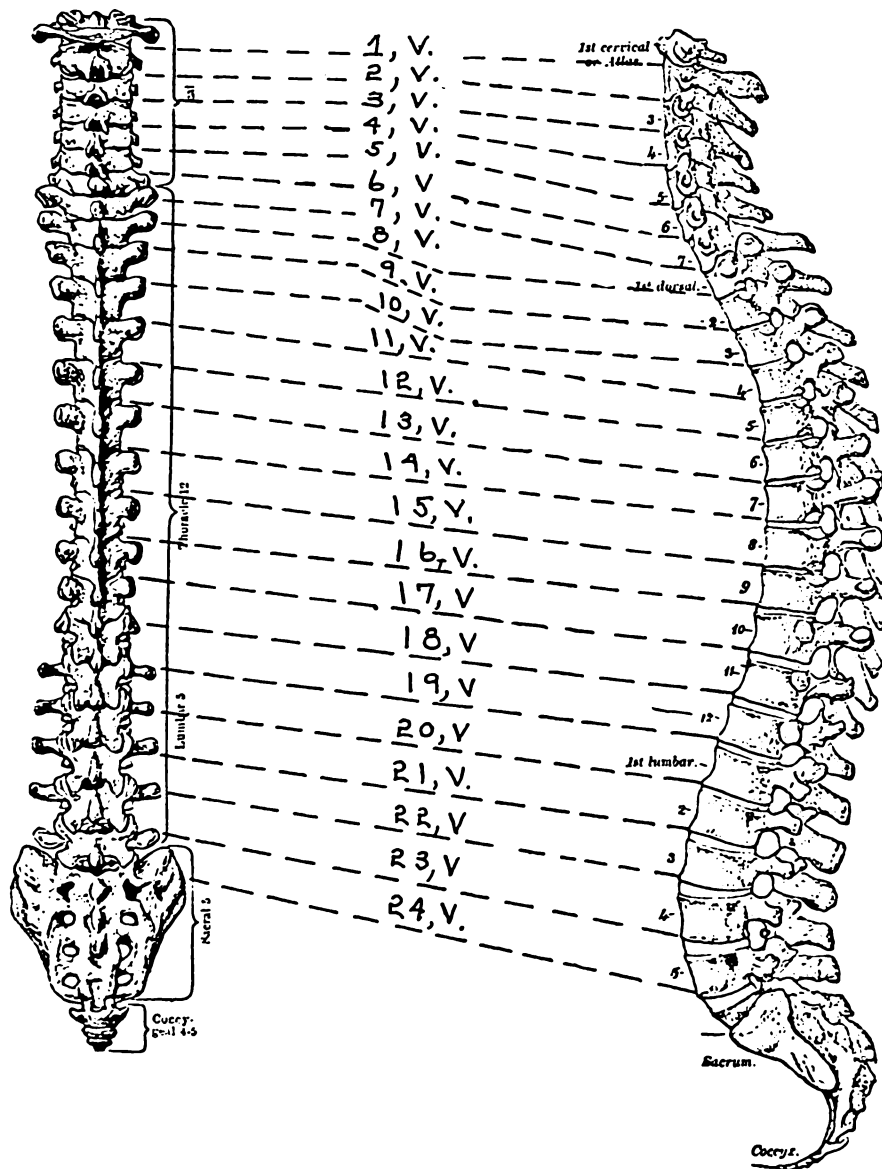


Fig. 67—Vertebral column
as seen from behind.

Fig. 37—Lateral view
of the spine.

The human spine (after Gray), posterior and left lateral views. Showing the osseomeric vertimeres.

The Neuromere is a transmissive mere. It can be both causative and effected. Causative inasmuch as it is thru it currents are passed and thru it currents are not passed—the cause of life and the cause of death, or taking the intermediate condition, the partial transmission of currents—disease. It is also an effective mere, for it is at the peripheries of these fibres we note the absence of that one quality subject necessary to maintain function. Thus the nerve is the binding substance, the materiality that connects the immateriality with materiality—that makes cause and effect a perfect construction in the human body. The boundaries assumed by each mere are subject to slight general variations on the average. Occasionally a broad jump from one into another or across into several is noticed, but usually the fibres of a particular zone will run superiorly into the inferior borders of the superior neuromere or inferiorly into the superior border of the inferior zone. The neuromeres convey impressions afferently to the brain and efferently to the dermamereres, viscemereres, myomereres and oseomereres. It is the neuromere that makes our connecting link between the causative and effected mereres, yet this in itself manifests both.

The Neuro-meric Table.

The Chiropractor does not use “sympathy”—“Reflex Action”—etc., etc., in connection with his study of nerves. He relies upon nerve-tracing. Doing so for many years upon thousands of persons, with hundreds of photographic records, gives us the following table; nothing more, nothing less. To add more is to increase superstition. To reduce would be to dissect some important function. No living body can live without the sets as follows:

1st neuromere includes those nerves and fibres emitting superior to the 1st vertemere.

2nd neuromere includes those nerves and fibres emitting superior to the 2nd vertemere and inferior to the 1st vertemere.

3rd neuromere includes those nerves and fibres emitting superior to the 3rd vertemere and inferior to the 2nd vertemere.

4th neuromere includes those nerves and fibres emitting superior to the 4th vertemere and inferior to the 3rd vertemere.

5th neuromere includes those nerves and fibres emitting superior to the 5th vertemere and inferior to the 4th vertemere.

6th neuromere includes those nerves and fibres emitting superior to the 6th vertemere and inferior to the 5th vertemere.

7th neuromere includes those nerves and fibres emitting superior to the 7th vertemere and inferior to the 6th vertemere.

8th neuromere includes those nerves and fibres emitting superior to the 8th vertemere and inferior to the 7th vertemere.

9th neuromere includes those nerves and fibres emitting superior to the 9th vertemere and inferior to the 8th vertemere.

10th neuromere includes those nerves and fibres emitting superior to the 10th vertemere and inferior to the 9th vertemere.

11th neuromere includes those nerves and fibres emitting superior to the 11th vertemere and inferior to the 10th vertemere.

12th neuromere includes those nerves and fibres emitting superior to the 12th vertemere and inferior to the 11th vertemere.

13th neuromere includes those nerves and fibres emitting superior to the 13th vertemere and inferior to the 12th vertemere.

14th neuromere includes those nerves and fibres emitting superior to the 14th vertemere and inferior to the 13th vertemere.

15th neuromere includes those nerves and fibres emitting superior to the 15th vertemere and inferior to the 14th vertemere.

16th neuromere includes those nerves and fibres emitting superior to the 16th vertemere and inferior to the 15th vertemere.

17th neuromere includes those nerves and fibres emitting superior to the 17th vertemere and inferior to the 16th vertemere.

18th neuromere includes those nerves and fibres emitting superior to the 18th vertemere and inferior to the 17th vertemere.

19th neuromere includes those nerves and fibres emitting superior to the 19th vertemere and inferior to the 18th vertemere.

20th neuromere includes those nerves and fibres emitting superior to the 20th vertemere and inferior to the 19th vertemere.

21st neuromere includes those nerves and fibres emitting superior to the 21st vertemere and inferior to the 20th vertemere.

22nd neuromere includes those nerves and fibres emitting superior to the 22nd vertemere and inferior to the 21st vertemere.

23rd neuromere includes those nerves and fibres emitting superior to the 23rd vertemere and inferior to the 22nd vertemere.

24th neuromere includes those nerves and fibres emitting superior to the 24th vertemere and inferior to the 23rd vertemere.

25th neuromere includes those nerves and fibres emitting superior to the 25th vertemere and inferior to the 24th vertemere.

26th neuromere includes all those nerves having a common exit on the anterior or posterior sacral foramina—not usually considered as being subject to pressure.

27th neuromere includes those fibres having exit superior to coccyx and inferior to the sacrum. The common damage is thru the cornua. (See Vol. 3, THE SCIENCE OF CHIROPRACTIC, for further information.)

Metamerism-Metamere—The same meres in various forms. A dermamere, myomere and oseomere make one metamere, providing they are all in one zone.

Superimposed zones are complete layers or sections of structure running from side to side and having varying thickness from above downward. They have thickness, but the width varies according to locality. Each superimposed zone is complete within itself so far as concerns its vertemere, from which issues all the fibres which go to the skin, muscles, viscera and osseous structures within the same zone. Many of these, placed above and below each other, intervertebral in their structures and functions, makes man a complete machine. The vertemere may contain a subluxation which impinges a neuromere effecting the functions of any one of the meric structures in that particular superimposed zone, or it may effect any combination of two or more in any possible

conception. of degrees. The number of affections that could, can and do exist are only limited by the size of a medical dictionary. In some instances we have the overlapping of a mere in other zones; for instance, S. P. on right, running to the throat and head, where one vertemere has its fibres passing thru several dermameres into another myomere. Such is unusual, but it is well to note. The exceptions will occur, as is evidenced by nerve tracing.

The vertemere, dermamere, viscemere, myomere and oseomere are here referred to in connection with the parts they deal with in *efferent* functions. We still must consider appropriate names and definitions for districts which induce the reception of *afferent* functions, for it is not unusual to find a sense absent wherein we can find no efferent function abnormal. For instance, the impressions of sight are created, but pressure upon afferent nerves would shut off the transmission of those impressions to the mind, therefore they are not interpreted nor known to exist.

Audimere—That locality in which the area is bounded by those tissues where impressions are created, which, when interpreted, are known as the sense of hearing. The audimere is subject to afferent neuromeric connection with its vertemere, the same as any dermamere, myomere, viscemere or oseomere.

Olfamere—This bounds the meric line from which the sense of smell has its origin and has its vertemere also. It plays the same part in a cycle as does the audimere.

Optimere—A term used to designate a circumscribed area of tissue structure in which the reception of sight impressions is the ultimate function involved. It has dermameric, myomeric, oseomeric tissues which assist in perfecting the creation of impressions, which, when interpreted, are known as sight. The optimere has its corresponding vertemere.

Gustamere—This important function is resident within a zone the same as other senses, each having its primary structure through which there is an origin of impressions within certain places. It is to describe this district, when the gustatory function is present, that we name this.

Sensomere—The sense of feeling is so general, so prevalent, inside and outside, and so common to all organs, viscera and meres alike, that it would be impossible to discriminate as to locality. It becomes necessary to do this with each and every abnormal function, with each and every particular case. The word will be seldom used because of this fact.

The *Audimere*, *Olfamere*, *Optimere* and *Gustamere* include the boundaries of tissues only. They are only known as they are when the function is being performed within these tissues. Without this function the tissues lose their distinctive qualifications and revert to some other mere, such as (ear) dermamere, myomeric and oseomeric.

Omnemere—Should we refer to all functions—normal or abnormal—in a certain zone that is under discussion, we could use the term "omnemere" in preference to enumerating each such as

"dermamere, myomere," etc. It abbreviates and tells what we mean in one word. Its use implies that all tissues are involved either in one common condition in that zone or that each tissue is differently affected, yet all tissues are more or less affected within that zone.

Unimere—In speaking of the various divisions of the body, if we did not particularly care which tissue we were speaking of and wished some common word to express a district, then *unimere* answers that purpose. Its use does not apply to the zone because that includes several meres.

1st Zone

The Atlas is the first vertemere.

The dermamere is all that tissue superior to a horizontal on the level with the Atlas with the exception of chin, cheeks, eyes and forehead. Ears and scalp are within this dermamere.

The Atlas myomere includes those muscles and muscular fibres of the scalp and ears, even to those portions of muscles which are superior to this vertebra in the posterior of the neck only.

The Atlas visceremere is the brains (Innate and Educated) entirely. The Atlas oseomere includes the skull in all divisions, including the ossicles of the ear, internal and external, with the exception of the bones of the face and nose.

The Atlas zone being the 1st, there is none above.

The audimere is located within the 1st zone.

The sensomere includes such areas as are outlined under the dermamere.

In all things external to man and not internal to Innate, the foundation is nearest the earth. The majority of vegetables have a foundation at or in the ground. Buildings begin at the bottom and grow upward contrary to that; all of man begins above and grows downward. To count the growth of a tree is to start from the "core." So to the *real* growth of man, it comes from the inside outward—from the spinal cord to the organ—from the brain to the spinal cord—from Innate Intelligence to the brain—always radiating from a center.

2nd Zone.

The Axis is the 2nd vertemere.

The 2nd dermamere is in all general respects the same as Atlas, with the exception that in going inferiorly it takes one width of a vertebra more of a transverse section. The localities involved are similar. See Pt. 12.

The Axis myomere includes such areas as outlined in Atlas and in addition a lower portion of the superior posterior muscles of the neck. If any difference can be stated, the zone being lower, there would be a less liability to affections of the 1st myomere and a greater liability those of the 2nd.

The Axis oseomere is similar to the Atlas with the exception of the addition of the Atlas as a portion thereof.

The Axis *viscemere* is the same as detailed under Atlas.

The Axis is the second superimposed zone.

The audimere is occasionally found here, although not so frequently as Atlas. Cases have been reported of good success following nerve tracing and adjustment for ears at this place.

The 2nd sensomere includes also such areas as are outlined under the 2nd dermamere.

By "viscemere" is meant the region bounded by a more or less movable organ, having usually one point of attachment, in contradistinction to muscles, which as organs have points of origin and insertion.

3rd Zone.

The 3rd cervical vertebra is in the third vertemere and is a portion of the 3rd zone.

The dermamere is outlined by an area that will include that zone and from the inferior of which may include such districts as are bounded by the 4th dermamere. (See 4th dermamere.)

There are no viscera in this zone.

The oseomere includes the axis and 3rd cervical vertebra.

This is the third superimposed zone. According to our meric relations, in combination with our composite key, we will find that the study of this zone is more or less blended with that of the 4th.

The myomere includes such muscles or portions thereof as come within this zone, both the anterior and posterior of the neck. This *does not* include the muscular fibres within the throat which are not located in this myomere, although, strictly speaking, within this zone.

Olfamere—This may be included in this zone in so far as the distribution of nerves therefrom are superior to the regular point of division.

Optimere—As much can be said for this as for the olfamere.

Sensomere—Will bear the same relations here as for the 4th sensomere. (See 4th Sensomere.)

4th Zone.

The 4th cervical vertebra is the 4th vertemere and is in the 4th zone.

The 4th dermamere includes all skin of the lower portion of tissues surrounding the orbit, the nose, cheeks, lips and chin, also the skin of the anterior and posterior of neck, inferior to the borders of the 2nd zone. The boundaries, while definite, are quite indefinite, because they are subject to a greater variation in the 4th dermamere than in any other cervical.

The 4th myomere includes such muscles and portions thereof which include temples, surrounding the orbits externally, those of the mandible and superior maxillary, the muscles of the lower third inferior to the scalp, from before backward, those of the nasal district, the center third of the neck, both anterior, posterior and laterally, the cheek muscles, and occasionally including, if the

nerves be far-reaching, some of the muscles on the extreme superior scapular and chest regions. None of the throat muscles is involved in this myomere.

The 4th visceremere will sometimes include the eyeballs, although rare. Local Serous Circulation can also have a common origin here for abnormal conditions of the myomeres and dermameres outlined as above.

The 4th oseomere includes the 3rd and 4th cervical vertebrae and also the hyoid bone if its functions are specifically abnormal.

The 4th superimposed zone is narrow in the rear and spreads much in the anterior and superior regions. In the use of the word "zone" I do not wish to imply that they are like layers on a perfect cake, but that they are subject to being distorted like a fallen cake. We speak of the strata of the earth, yet we realize and consider that it is still a strata even the up hill on one side and down hill on the other.

The audimere is located here so far as pressures within the 4th superimposed zone interferes with functions going to the nose, in which a few stray fibres will spread into the eustachian tubes as well as the nasal passages, thus interfering with more than one zone. We thus account for "nasal catarrhal deafness."

The optimere, wherein the specific functions is interfered with, is always found here. The optimere is especially prominent at this zone, wherein the primary afferent and efferent functions of sight are involved. Atrophy being a prominent affection of this mere.

The gustamere also has a common origin here. Do not confuse the sense of taste within the mouth with other functions of the throat, which are more prominently described under the 13th zone.

The sensomere for this region is only limited by the boundary lines of the omnemere.

5th Zone.

The 5th cervical vertebra is in the 5th vertemere, and also in the 5th zone.

The dermamere of this zone especially involve the fibres on the superior of this vertebra, and are distributed in an area which is, on general grounds, the same as that of the 4th, with the exception that the boundary lines are more restricted, although occasionally tracings will lead out to the most extreme limits of the 4th dermamere.

The myomere includes the muscles, both anterior and posterior, of the neck, excepting the fibres within the throat. This myomere is lower and more restricted to the boundaries of the zone than is that of the 4th myomere.

There is no 5th visceremere.

The oseomere includes the 4th and 5th cervical vertebrae and sometimes the clavicles, although this is rare.

The 5th superimposed zone, if looked at from the superior, would present much of the appearance of a doughnut, having a

circular form and some thickness. This zone, like the majority of the cervical zones, is horizontal and on the main level. Occasionally the audimere is found here, altho usually at the 4th vertemere.

The same can be said of the olfamere, optimere and gustamere.

The sensomere includes the impressions that would start at any tissue cell within this zone, either internally or externally. In this way Innate is in constant afferent communication at all times with the condition of affairs in this sensomere. This word is used to convey a district, the ultimate issue of which is the interpretation known as sensation.

When two vertebrae are listed in any zone as oseomeres, it implies that a subluxation of the 4th cervical vertebra could affect the 4th cervical vertebra, or any portion, also of the third. Usually it involves only the one above.

6th Zone.

The 6th cervical vertebra is in the 6th vertemere and also the 6th zone.

The dermamere is similar to that of the level strata of earth. Remove one layer and you have another underneath. These layers are composed of the various structural tissues, which cross and intercross many times; thus, while they cannot be probed off in the fashion just described, yet they do exist in this manner so far as is consistent in our study of the manner and division of functions as carried to them, by and through nerves. The study of pathology, using the process of addition, in analysis and subtraction as in elimination, has reduced man to this uniform analysis.

The myomere assists in bringing about this knowledge almost as much as the dermamere has done. Paralysis is the most prominent in portraying these superimposed zones. Occasionally tracing leads us to know that the abnormal contraction of the muscles surrounding the highest horizontal tubes has a cause, being expressed outside of the regular myomere of this district.

The 6th oseomere includes the 5th and 6th cervical vertebrae.

The description given for the 5th superimposed zone applies equally well here.

7th Zone.

The 7th cervical vertebra is in the 7th vertemere and also the 7th zone. Until of recent times, the last year, we had scientifically ignored the 7th cervical as a causative factor with any disease. Recent investigations into nerve tracings, careful palpitation and spinographical work proves a very frequent subluxation of this vertebra. Its very prominence makes it a fit subject to every possible blow.

The 7th dermamere is very much like the 6th and 8th. The area being likewise the same. This is in conformity also with recent work.

The myomere is similar to the 6th. The area, portion and sets are likewise equal.

The 7th oseomere includes the 6th and 7th cervical vertebrae.

The Dorsal Zones.

The meres throughout the dorsal region, particularly the visceremere, will now assume a very irregular outline. The general direction of the zone, starting from the vertebræ as a base, will be forward and downward, taking sometimes quite a degree of angularity. As for the viscera, they will often be found not to correspond with the other unimeres that go to make one complete zone. They are subject to more or less fluctuations. Nevertheless, they are bound most distinctly and do not permit of much variations from the boundaries as are given herein.

It can be seen that if these zones are subject to these changes in the normal, that due discretion and care must be used in analyzing all curvatures, for if the distortion be great it will materially change the location of the mere to correspond with *its* omnimeres, although the affected meres will still retain the same bearing with the causative meres. The cause will be determined according to the same universal basis.

8th Zone.

The 1st dorsal vertebra is the 8th vertemere and is in the 8th zone.

The dermamere throughout the dorsal region will be very regular compared with those of the other meres of these zones. This dermamere includes a strip of skin from before backward on a level with this vertemere, which will not exceed over 1 to 1½ inches in height. It will include the superior portion of the back and chest. This dermamere is level and does not drop on the anterior.

The myomere will include all such fibres as are within this zone and include those of the superior of back and chest, even to the vertebral muscles and those that lift and lower the clavicles that are within this zone, which includes the anterior one-half of the arm as the hand is extended laterally palm forward. The muscular fibres of the bronchi are also within this myomere.

The visceremere might include the superior portion of the heart, although this is prominently within the province of the 9th visceremere. We will also include the bronchi in all their larger and small divisions. In considering the tubes I make a fast line between the mucous membrane of the bronchi and that of the epiglottis. The mucous membrane and all other tissues of the bronchi are subject to command from this zone.

This oseomere includes the 7th cervical and sometimes 1st dorsal vertebræ as well as the clavicles, and occasionally, if inclined to be freakish, the hyoid bone. Rarely we might include the superior of scapulæ. The first pair of ribs are in this zone.

The superimposed zone here fulfills a very important function, altho the 9th described under dermamere, but also those from the myomere and mucous membrane of the bronchi as outlined.

The superimposed zone here fulfills a very important function, and synthesis, the symptoms are unique and independent. Primarily and irrespective of other facts, we include the circulatory

system has having one causative zone (H. P. 9, 10, 11th zones); the respiratory system (10, 11, 12th zones), the digestive tract (12, 13, 14 zones), the urinary system (19, 20, 21 zones), the reproductive systems (22, 23, 24 zones). Notwithstanding the fact that many viscera in these systems blend above and below the limits mentioned, yet the emergence of fibres remain fixed as given. The fluctuation permits the variances in individuals.

9th Zone.

The second dorsal vertebra is the 9th vertemere and is a portion of the 9th zone. The dermamere includes the next inferior zone, which lies below the 8th and also receives impressions which have a common origin in the rear one-half of the arm when arms are placed laterally with palm forward.

The myomere includes the posterior one-half of the arms and the second zone of the chest and rear of torso below the 8th vertebra.

The viscemere includes well defined lines surrounding the heart and also sometimes the superior portion of the lungs.

The oseomere includes the 1st and 2nd dorsal vertebrae and a well defined portion of the scapula which is superior to the spine of that bone. We also have the second pair of ribs to consider as being in this zone. The 9th superimposed zone is slightly lower on the anterior than posterior, the width of the zone being above the same at both places. Approaching the effective zones the viscera increase in value, as these zones include these structures which the zones above had not had. The distribution of the various organs therein are more important in that respect. So far as general structure is concerned one tissue is as important as another, as each has its nine primary functions to manifest and personify. The loss of one in one place is no more important than a similar condition somewhere else. We have been taught to think that one or perhaps two or three were very important. For instance, the heart was supposed to hold within its pulsations the life principle—whatever that is. Yet the importance of the brain, spinal cord, and nerves was diminished to the minutest of the knowledge and sciences by past investigations, due to the little that has been known regarding their functions.

The sensomere includes such tissues as are in the superior portions of lungs, all of the heart, muscles of the thorax in this zone, both anterior and posterior, and also a superior section of the manubrium of the sternum and also the third pair of ribs. This also includes the district of the derma within this zone. By a sensomere we distinctly understand that it can be voluntary to either mind-Educated or Innate. Each mentality according to its development has at its disposal the will to voluntarily sense any condition, normal or abnormal, through afferent nerves and inter-

pretation, that is being expressed at the periphery of afferent fibres within this zone.

This sensomere also includes such impressions as will arise in the superior portion of the pleura. In this sense we presume that you make and apply the common distinction of the differences between the different voluntary and involuntary sense, considering where they arise.

10th Zone.

The 10th vertebra is in the 10th vertemere and is in a portion of the 10th zone.

The 10th dermamere includes a zone which is broader anteriorly than posteriorly. Its direction is more obliquely downward than was the case with 9th dermamere. It would include a strip above the nipples of a male while the derma was flat against the chest. Posteriorly it would include a portion over the superior of the scapulæ.

The myomere would include such muscles as are short enough to run within this zone and such portions of muscles as would cross this zone from above downwards. It would also include the muscles or portions thereof which are placed horizontal to this one. While these are distinctive under pathology, yet it can again be stated that the nerve fibres from a specific zone do somewhat spread into the inferior portion of the zone above and into the superior portion of the zone below, and while such zone is independent yet it is interdependent, due to the blending of one zone into another. Especially is this noted in monoplegia of any area which proves the zone principle beyond a question to any close and considerate student.

The viscemere contains the center portion of the lungs and the apex of the heart. Although this classification holds as regards zonal divisions, yet its fibres will be found to be more or less entirely within the province of one particular subluxation in *one* zone. The pleura and other thoracic tissues, including those that are serous, have functions bringing forth such conditions as hydrothorax within this viscemere.

This oseomere includes occasionally the 2nd dorsal vertebra—always the 3rd dorsal—2nd pair of ribs, a lower zone of the sternum and also a middle section of the scapula.

Superimposed Zone—This as well as a few lower zones is very adaptable to changes which will, can and do occur in early foetal life as regards anomalies of the viscera mentioned above. They are of frequent occurrence. Therefore, while this set of ideas aims to be composite, as our “key” has been, it does aim to be accurate in any one particular case.

The sensomere will also include the vertebra as a part of this mere. It is made of tissues, is subject to the constant commands of Innate. It therefore follows that it must be in constant communication with that intelligence. While the vertebra is a causative factor, yet that does not preclude the possibilities of its being an affected one, due to subluxation above or below.

The sensomere also includes one set of fibres for every function involved, every afferent having its efferent, or vice versa. If this subject were to be minute and accurate, according to present knowledge, we would make a classification of impressions, such as:

- a. Calorific impression.
- b. Reparative impression.
- c. Excretory impression.
- d. Secretory impression, etc., etc.

Thus the sensomere could in its turn take on another phase, such as "the 10th reparatory sensomere," this designating *which* particular efferent sense you were referring to in that sensomere. A further distinction could be made by calling these "internal functions" or functions of an "internal" or Innate character, contradicting them from the Educated sense of feeling things externally.

11th Zone.

The 11th vertebra is in the 11th vertemere and forms a portion of the 11th zone.

The dermamere includes those portions of skin which encircle the body, taking in a strip following slightly below the axilæ on both sexes. You will now notice the slight overlapping of this dermamere with that of the one superior. The degree of slant is not quite that of the 10th dermamere. The thickness posteriorly is greater than anteriorly.

The myomere again bears the same relation to that of the 10th, with the exception that its location generally is slightly lower. If we can make any distinction whatsoever between this outer and inner layer of muscles I would say that the superior vertebra in any one region will go to the inner or deeper muscles of those regional zones, whereas the lower vertemere would have to do with the more external muscular fibres of the same regional zone.

The viscemere of this are similar to those of the 10th viscemere, bearing in mind that the 4th dorsal is one of a region. In all this viscemic, as well as oseomeric work, the divisions are more or less blended one into the other, so that it would arrange itself around regions that we have analyzed such as A. P., Lu P., etc. We could accurately utilize the term "Lu. P. vertemes," speaking of the region. Should you wish to be exact, the 11th vertemere tells what you mean. As we ascend from atom to molecule and thus begin to observe organized substance, we classify from the smaller to the larger. The steps here are the same, the meres make a zone and several zones make a region, and the regions form a man as a unit; therefore the two units in the consideration of any organization are the atom and completed object. The nearest we approach either direction the more complete it is. The identity becomes clearer and more practical in general, but for analytical purposes every step from atom to object in man must be classified. For this purpose we have divided him according to the manner in which functions control him.

Oseomere includes occasionally the 3rd dorsal, also the 4th dorsal, the center one-third of the gladiolus and the 4th pair of ribs; also a portion of the scapula, especially of the blade.

The sensomere includes all the tissues of the organs mentioned above and includes all functions thereof.

12th Zone.

The 12th vertebra or the 5th dorsal is in the 12th vertemere and in the 12th zone also.

The 12th dermamere posteriorly approaches a more oblique line, running forward and downward. The general appearance of this dermamere is that of a zone sliding forward. The direction latterly is slightly curved, making more of an irregular outlined zone. From now on until we reach the 1st lumbar they will be very irregular and will cross through and into many dermameres above and below. This dermamere is inferior to the axilla and reaches the skin over the nipples of both breasts. Any affection in the skin of that zone will have its origin in the causative mere. The myomere would include such muscles as would come within this district, including those under the axilla, over scapula, under scapula, over sternum and under sternum, as well as those placed lateral to those organs and also those larger and smaller fibres surrounding the 5th dorsal. Under the classification of myomeres we also wish to include those ligaments, cartilages and tendons which may be affected within these zones. They are but the continuation of muscles, therefore are subject to abnormal conditions therein, the same as muscles, considering the change in structure only, the primary functions remaining the same and the combinations of which, in various degrees, may be abnormal, remain the same. Should you find a myomere which has been infiltrated with cartilaginous cells and those in turn infiltrated with ossific cells, or the muscles have been ossified directly, it still remains a myomeric affection, the deposition being one of adaptation to a circumstance.

Viscemere—As we approach these dorsal vertebræ we are getting more fibres in their distribution to the viscera. Prominently coming to view in this section of man is the study of the liver in its zonal divisions. This cable of fibres is purely one on the right side. On the left we have our fibres running to the pancreas. Herein is one of the peculiar divisions of fibres for which I can offer no explanation. The spleen lies higher than the pancreas, but the viscemic division is higher. In this viscemic division I also wish to refer to the arterial and venous walls. They are viscemere inasmuch as they are movable, although truly the abnormality would be muscular, therefore could be as aptly applied to the myomere.

The oseomere includes occasionally the 3rd dorsal and always the 4th dorsal, the 5th pair of ribs, and a lower portion of the center third of the sternum, as well as a thin section of the scapulæ.

For exostotic growths, wherein true exostosis is an adaptation to some circumstance, you would not adjust a subluxation in this

area, for the exostosis was the adaptation. As soon as the osseous abnormality has been corrected the true exostosis will disappear quite as easily as it came.

Any *false* exostosis within this oseomere would be adjusted at this region. It would mean that this osseous abnormality was the direct result of a cause within this oseomere. Adaptations may and usually do occur, but those interest us as the expression of an intelligence only. Adjust the vertebra within the causative vertemere and the disease within the effective oseomere will disappear.

The 12th superimposed zone has been thoroughly covered in the preceding chapters, therefore we hesitate to repeat.

Sensomere—Sometimes, but not usually, the inferior of this vertebra issues those fibres, which from their varied distribution are known as general impressions, for they seem to have a starting point at any and all conditions circling around certain functions. We shall more thoroughly describe this under the usual head, which is the next superimposed zone.

13th Zone

The 6th dorsal vertebra is in the 13th vertemere and also a portion of the 13th zone.

The 13th dermamere is undoubtedly the most varied of any one in the full list of dermameres. For an affection of the skin which becomes general we will look for one common origin; as, for instance, general eczema, which will have one cause which reduces the vitality of the skin by withdrawing from it the normal amount of power that it should have. This state of affairs, in combination with a subluxation in the 19th vertemere means the above disease, and many more, which are most thoroughly covered under combination subjects in Vol. 4, *The Science of Chiropractic*.

The myomere, in this zone, is also somewhat varied and general, but not to the extent of the dermamere. In many diseases of muscles which appear to be general it will be found to be confined to several certain specific areas, which appear to give forth in their turn general affections, but each affection has local vertemere causative factors. Under the classification of myomeres we could justly include the muscles of the wells of the viscera, but we shall discuss that under its separate head. It is of common experience to find purely these meric affections confined to one side or the other. I know of no more direct classification other than side against side, normal opposed to abnormal, the bisection extending perpendicularly and in the median line. This causative unimere opposed to its effective mere, regardless of character, is prominently displayed in left or right hemiplegia.

Viscemere—Under myomeric parlance this is S. P. region. We have been unable to give one without the other because of the usual running together of these two zones. The viscera in this zone is the stomach primarily. By stomach is meant the entire organ; not a section. This includes every part, internal or external, and every function thereof, in normal position or prolapsed. As spoken above,

here is a distinct bilateral affection, the left. Upon the right is noticed a very peculiar divisional crossing of zones—that of fibres leading to the throat. In this I wish to include that district under the term of viscus, because of its prominence in so many diseases and its peculiar point of origin. It could have as well been brot under the myomere, because it is the muscles of the throat which are principally affected on the right side.

Oseomere—This zone includes the 5th dorsal, occasionally and usually the 6th dorsal vertebra, the 6th pair of ribs, the central portion of gladiolus of the sternum. In this zone we must not overlook the duties that the hyoid has to perform, and as it is prominent in this connection we will include the functions of that osseous structure with it. The latter sometimes occurs; not always.

This is the 13th superimposed zone. Its various meres are not in unison as regards locations, shapes, positions, depths, or heights. Therefore if we could place them together as one unit by itself it would appear very much mixed, as it could justly be described, because of the fairly uniform shape of the majority that have preceded this.

Neuromere—The nerves leaving between the 11 vertemeres and the 12th are in the 13th neuromere. Those leaving between the inferior of the 13th vertemere and the superior of the 14th are in the 14th neuromere.

Optimere—We have no optimere in this zone, but we do have a constant current supply thru this neuromere which goes to the eyeball, and should there be affections of that viscus we will have such an abnormal distortion of the physical tissues that, while the typical optimere may be normal so far as all its tissues are concerned, yet the other tissues would not be working in harmony; therefore the impressions would not be in a normal receptive condition; therefore they would start out wrong, consequently the interpretation would be such as might be misleading and of such a character as to make us believe that the typical optimere was affected. I am referring especially to such conditions as are found with exophthalmic goiter, wherein the eyeball is distorted in shape and position to that extent, that impressions are distorted to correspond before they ever reach the periphery of the optometric fibres.

The sensomere is restricted more than that of almost any other zone that, inferiorly, has such a wide scope. This has long been one of the peculiar conditions found in tracing, that when crossing this zone, altho a fibre might have been superficial in other zones, in this it usually is deep, provided it reaches this vertemere. The width from above downward is very narrow, especially on the anterior; the posterior width is that of the vertemere. Even tho we have a general affection, as previously spoken—hemiplegia—the one-half of the cycle—the efferent half—will have its start from this neuromere.

As a general rule the afferent and efferent halves of each of every neuromere make but slight variations in the use of the same paths so as to be together at all times. This is not true with con-

ditions as evidenced by this sensomere. The efferent half may have its origin from this neuromere, but the afferent half may assume a most direct path back to the brain and not take the long circuitous route that the efferent half has done. This peculiar divisional phase of some nerves is mostly noted at this region. This shows the completeness of the systematization of systems. This division involves the digestive system.

14th Zone

The 7th dorsal vertebra is in the 14th vertemere and also a portion of the 14th zone.

The 14th dermamere includes a strip of epidermis which is comparatively narrow both fore and aft. Its depth is that of all ordinary skin. On speaking of the dermamere we refer to its use in the application of any functions which could be affected in it. The diseases which will be observed are endless, therefore we omit useless waste of time and space in characterizing them.

The 14th myomere includes those muscular portions thereof, superficial or deep, large or small, which are found within this zone, regardless of direction, name, origin or insertion. This includes the intercostal muscles between the 7th and 8th ribs on both sides and also those muscular fibres of the spleen and also the muscularic mucosæ which have to do with the onward propulsion of serum and urea in the serous circulation. The enumerations of particular names of fibres would again be needless, therefore withheld.

The 14th viscemere includes especially sometimes the spleen on the left side. The 14th oseomere includes the 6th dorsal vertebra and the 7th pair of ribs, and would also include a small portion of the lower gladiolus and also a lower portion of the scapulæ if it were diseased.

This is the 14th superimposed zone. It, like the 13th omneres, is not in exactly the same general relationship as those higher in the dorsal.

The 15th neuromere includes the fibres, as they have exit between the 14th and 15th zones. Those between the 15th and 16th are in the 16th neuromere. The importance of this knowledge can be readily seen because of its connective value, in the sense that it unites the causative mere with the affected ones; it unites the cause with effect by material properties and also connects in an abstract sense, the lack of transmission of currents which are inevitably the cause of each abnormality.

In this instance the sensomere is of the so-called involuntary variety. That is, the sensomeric neuromere, that has origin at and within the internal viscemere, is of the Innate type where she alone is permitted to sense conditions there. There are no fibres having an origin here that go to the educated brain. There was a time when I would have maintained to the contrary. No doubt you will offer the debating thot that we (Educationally) do feel pain in the

spleen. We do only so far as the Innate mind conveys its interpretations to the Educated mind from the Innate brain to the Educated brain. It is true that the above refers only to the myomere, oseomere, viscemere. The dermamere can be and is both; i. e., the Educated brain does receive fibres from the surface of the skin within this region, therefore can sense conditions without getting them from the Innate mind or brain first.

15th Zone

The 8th dorsal vertebra is in the 15th zone and is the 15th vertemere.

The 15th dermamere includes the same general outlines as that of the 14th, with the one general fact that is prevailing thruout the dorsal region, it is slightly lower from above downward. Its thickness is about the same both in front and rear. There is a greater resemblance between dermameres than any other set of meres in the body. We must not overlook that no one mere is distinct and by itself, they blend and interblend with the ones above and below.

The 15th myomere, like the 14th, has its distinct fibres to which it goes, thus making its boundaries thoroly distinct, yet blending with the continuous sets above or below. More could be said of these myomeres as we proceed and they undoubtedly will be amplified as time proceeds, so that the boundaries become more detailed.

The 15th viscemere also includes the spleen on the left side. Sometimes this neuromere issues fibres which go to the throat. This would be exceptional, yet it is a knowledge of the exceptions that prevents failures in many instances.

The 15th oseomere includes the 7th dorsal vertebra and the 8th pair of ribs and would also include a small portion of the superior part of the ensiform cartilage of the sternum.

Superimposed zone—This is the 15th zone, and it, like the 14th omnemeres, is not in exactly the same general relationship as those higher up in the dorsal region.

The 16th neuromere comprises all those fibres which have a common exit from the spine between the 15th and 16th vertemeres. Those between the 16th and 17th are in the 17th neuromere. We here must bear in mind that of transmission, afferent and efferent. These fibres comprise both kinds and perform both forms of transmission. These currents are the poles of the electrician and the positive and negative currents of the magnetician.

Sensomere—This subject has been thoroly covered in preceding chapters, the only characteristic upon which it would vary would be location in origin of fibres afferently and point of distribution efferently, thus making the transmission in each direction to correspond as regards location. The points of insertions of these fibres, in the brain would be different to correspond, altho at the latter place the function would be common to all, and so far as this is concerned the function of all neuromeres is the same.

16th Zone

The 9th dorsal vertebra is in the 16th zone and is the 16th vertemere.

The 16th dermamere includes all the units of quality that can be considered that are set into particular action by certain Units of Quantity of energy expressing an intelligence. They will be elaborated upon at other times and places.

The 16th myomere includes those muscular fibres which are inferior to those of the 15th myomere. The depth includes all the shorter, or those portions of the longer muscles which are bounded by the lines similar to those of the 15th. In this zone we again call your attention to the value of considerations of union of material with immaterial under all circumstances as enumerated under the lecture on the Unit system.

The 16th visceremere includes the same viscus and viscera as outlined in the 15th zone. This vertemere is but the lower half of this regional division of visceremes, therefor its general resemblances.

The 16th oseomere includes the 8th dorsal vertebra and the 8th pair of ribs and would also include a small portion of the middle of the ensiform cartilage of the sternum.

The 16th superimposed zone bears the same relationship that all zones in the dorsal region have, which has been thoroly covered heretofore. Bear this normal condition in mind when studying prolapses or herniæ of its organs or viscera, for you might and easily could be mistaken in regard to the effected zone or mere by the abnormal conditions. Follow the outlines as given carefully, regardless of where they may be placed abnormally, and you will find, if you wish to so verify by nerve tracing, that the causative mere remains within the same zone. Because one tissue or membrane may be stretched or relaxed does not necessarily change the normal law upon which the physical proportions and positions were laid out.

The 16th neuromere remains with the well defined boundary lines which it has. Speaking technically, the neuromeric unit does not end at the vertomeric zones, but on the reverse continues its identity thruout the spine, into the spinal cord, into the brain, finally reaching its destination in the lobe. Its functions, in return, will still maintain their identity. We speak of the "neuromere" only, tho, so far as it lies in this zone.

This zonal division does not hold to fast lines of physics. On the reverse, we want you to constantly bear in mind the relations, the coördinated conditions, which are a necessity to the completion of any cycle of functions thruout any zone, or the combination that must exist between any affected mere and the one causative mere.

The 16th sensomere is that series of impressions which would have one common origin, those tissues within all affected meres, and has one definite place of depositing them—the essential lobes within the brain where the mind, as the intellectual factor, completes the sensomere. This sensomere is again divisible into two factors—that of the Educated sensomere and the Innate sensomere.

Either of these is a complete unit within itself whenever it has performed each and every step which is so necessary to make one unit cycle. The Educated sensomere is superficial and the Innate sensomere superficial and deep.

17th Zone

The 10th dorsal vertebra is in the 17th zone and is the 17th vertemere.

The 17th dermamere is usually quite narrow on the anterior and as wide as they usually are on the posterior. Not such remains to be said of this mere as the dermameres of the last few vertemere have been approximately the same. We do not wish repetition here and now, altho the future will more comprehensively show man as a repeated article in structure and expression, for he creates nothing and but gives expression to something which has gone before.

The 17th myomere personifies the characteristic muscular function. We must see that all channels are open and free so that no hindrances can possibly exist between the points of creation and expression. This mere includes all fibres underlying the dermamere and takes in some parts of large ones and many smaller divisions.

The 17th viscemere includes the spleen oftentimes, especially where the division of fibres is low in the spine. Occasionally if the fibres be segregated high, some of these fibres will go to kidneys, so that this could be appropriately called K. P., begin named after the viscera in that zone.

This is also the 17th superimposed zone.

The 17th sensomere includes all of the tissues within this zone, even to the smallest possible, in and thru which are received the impressions of just what speed, velocity, form and quality the units of energy are being transposed in the other. The sensomere is the most important function in the human body, for without that we would certainly not have the knowledge of what is going on peripherally.

The 17th neuromere includes the 17th pair of nerves emitting from above and the 18th pair below. These fibres have their exits at the places mentioned and their depositions into all tissues mentioned above.

The 17th oseomere includes the 9th pair of ribs, the gladiolus, portion of the sternum and no other osseous structure except the 9th dorsal vertebra.

18th Zone

The 11th dorsal vertebra is in the 18th zone and is the 18th vertemere.

The 18th dermamere includes all the composite functions that are common to all superficial tissue cells, regardless of where located within this region, with the one function of sensation.

The 18th myomere includes those muscular fibres which are within this zone. They may be varied as regards location, but the functions remain the same. To speak of a myomere is to speak of all muscular functions in and thru which foruns work. In this

classification we are determining the immaterial divisions of the body as large districts. We have now made out classifications of the units not only of matter but also power, thus we gradually enlarge from the unit of matter into the quantity of power and then unite them together into one zone. This makes the work more scientific because of our ability to express in quantities, without which our thots would mean everything or nothing. Every thot or myomeric action is purely comparative, according to quantity of cells that are transposed into action. When we speak of a muscle we mean a number of combined muscular cells.

In speaking of the 18th viscemere we mean to include more than one viscera in this zone, providing such proves to be the fact. Then again we have in mind a comparative size of these viscera, knowing well that the organ makes the volume of its construction. We further do consider the number of cells collectively and relatively, which make an organ what it is, thus the organ again speaks its quantity of cells. In referring to cells we do again have the thot in mind of quantity of protoplasmic atoms therein.

In considerations of the oseomere, 18th in number, we know that one atom must have one unit of energy to cause it to move, one molecule has more than one unit, thus step by step we cause an equivalent condition to exist between various constructions of matter with equal amounts of force. To consider the matter alone in these zones, without quantity of force being considered, would be to have one without any value being attached to this particular study of man.

The 18th sensomere is the afferent half of this omnemere which matter making and utilizing man as a product into divisional studies. In medical and osteopathic parlance everything is considered in lump form, no detailed composite study exists. Histology and bacteriology are "detailed studies," but of a material character only. The foundation of man does not permit the latter exclusion. Our foundation being carefully considered, weighed and then laid, we are able to see the wherefores of this segregated combined study.

The 18th neuromere brings to our attention that unital connecting material substance which unites the brain above with the organ below. Thus it proves an important physiological step to our infinite minds.

The 18th sensomere is the afferent half of this omnemere which we have considered in detailed fashion. Broadly speaking, the omnemere exists in two forms—the corporeal and immaterial. The sensomere is what unites the action to the interpretation to produce another just like it or another which will adapt itself to the present condition.

19th Zone

The 12th dorsal vertebra is in the 19th zone, and is the 19th vertemere.

The 19th dermamere is peculiar in that it usually draws to a focusing point on the anterior of the abdomen below the umbilicus. The width posteriorly is that of the usual dermamere.

The 19th myomere includes the usual divisions listed in the former lower dorsal and also the superior fibres of the muscles of the abdomen.

The 19th viscermere includes the kidneys as the primary viscera of the set. They are especially prominent as is set forth in Vols. 3 and 4.

The 19th oseomere includes the 11th dorsal, the last pair of floating ribs and none of the sternum. From this on we miss the ribs and all other anterior bones until we consider those of the lower limbs. Occasionally some muscles become infiltrated with osseous cells and ossify direct; in other cases they become infiltrated with the cartilaginous cells and those become ossified at a later date. This occasional abnormality occurs in the abdominal muscles. Specimens can be seen in *The P. S. C. Osteological Studio* which verifies this fact.

Where the usual 24 vertebræ are present, the usual division between dorsal and lumbar occurs here. In such an event the effective meres as well as the causative mere is divided equally to correspond. The height or shortness of the contents are brought about by the varying thickness of these meres. The "vertemere" includes the half portions of the cartilages as well as the osseous structures. The shape of the oseomere as well as any other mere is subject to great variations as we can well understand when the application of this rule is made.

The 19th superimposed zone includes all the meres in this section.

The 19th neuromere—These neuromeres are easily and accurately deducted, as has been most amply proven hundreds of times with accurate nerve tracings. The paths which determine the neuromere are ascertained solely by the records thus gained. The compilation of many of these has made this a connecting link between the determination of the causative mere and the effective ones to correspond. The 19th sensomere includes all of those tissues which are in this zone, effective as well as causative.

20th Zone

The meres of the lumbar are very well defined thruout. You will find that in all of its divisions there are less opportunities for spreading into irregular paths than in the dorsal. These are more nearly exact in the Cervical Vertebræ than in the Dorsal, i. e., the dorsal meres are the most irregular thruout the entire spine. In point of regularity, I would say the cervical come first, as a set, the lumbar second and the dorsal last, so that in the study of the meres of the Lumbar Vertebræ we shall have few variations from the general zone idea. Each vertebra and its respective meres generally rest entirely within that one, and will not be subject to much fluctuation above and below, altho it is a fact that the variations of the borderings of the inferior of the zone above will spread into the superior of the zone below, and this holds good thruout every mere and in every zone from the first to the last.

The 1st lumbar we find in the 20th zone and in the 20th vertemere. As nerve tracing of a superficial character has shown, these fibres will separate and spread over an area running oftener upward than below and this spreading superiorly is more above than it is below.

The 20th myomere includes not only the muscles on the interior of the abdomen, long and short fibres, that are within that zone, but also will have some nerve fibres which will branch out into the muscular fibres on the zone above and inferiorly, and also the nerve fibres on the inferior of this zone will spread into the superior muscular fibres of the zone below. It not only takes in all the muscular fibres within the anterior, but the lateral sides and posteriorly.

The 20th viscemere would include the superior portion of the intestines and the superior portion of the bowels, especially the transverse colon, and also the lower portion of the diaphragm in some cases—not always.

The 20th oseomere includes only the 1st lumbar vertebra. It does not include any other bone in this region, unless abnormal. Some of the muscles have been infiltrated with cartilage and then ossified indirectly, or ossified directly from the muscular condition. This disease—Myositis Ossificans—sometimes occurs in the abdominal muscles, and we have in *The P. S. C.*, Osteological Studio one beautiful specimen of this character. It has been stated by prominent authorities to be the largest one-set piece of this character ever dissected from the abdomen. In such an instance this condition could take place in any muscle in any portion of the body. It occasionally happens in muscles of the limbs, also.

The 20th neuromere includes the fibres which have their exit from the spinal column between the last dorsal and first lumbar vertebræ, i. e., these fibres are representative 20th neuromeric fibres; not that they have their point of origin at this place, but that this is their point of exit from the main cable, all of whose fibres have origin at the base of the brain. In speaking of the 20th neuromere I wish to very emphatically state that there are no fibres having a common origin within this zone. What fibres are found in any of the effective meres have but one origin from which every fibre comes, and that is the brain, therefore no matter what fibre may be involved, under pressure, in this particular place—in the viscemere, oseomere, myomere or dermamere, it has one place of exit which is subject to pressure. A variation is possible in all such cases, i. e., these fibres may have their exit from between the 19th and 20th neuromeres, or between the 18th and 19th, or the 20th and 21st, but usually this zone, in any of its affections, has one point of cause which is a subluxation in the 20th vertemere.

The 20th sensomere includes every tissue cell in this zone. The sensomere is but a term to express certain boundary lines in which impressions, having one common point of origin, will be transmitted afferently toward the point of interpretation. Every action taking place in a bone, muscle, skin or other tissue situated in this zone causes an afferent impression, which with the cor-

responding efferent interpretative function coming from the brain completes the cycle, and makes the sensomere complete.

21st Zone

The 2nd lumbar vertebra is in the 21st zone and is a portion of the 21st vertemere, understanding that this vertemere includes the vertebra and a vertebra constitutes all of its osseous structure. In speaking of a vertemere, it is not intended to include surrounding softer structures.

The 21st dermamere includes a strip of epidermis just below that of the 20th and becoming broader anteriorly than posteriorly, approximately I should say at its anterior median line, $\frac{1}{2}$ inch wider, from above downward than posteriorly. The superior line, or boundary of this zone would be approximately level; the inferior line would run backward and slightly upward. The epidermis includes the zone's various divisions. It would be a hard matter to draw a line as to just where one ends and the other begins, so that in a study of the various meres, such as the blending of the dermamere with the myomere and the myomere with the viscemere—it is impossible to draw a line as to where one begins or ends, so that this study becomes one of blending one mere with another.

The 21st myomere includes all of those muscular fibres which are found within this zone; not only all of the shorter fibres anteriorly, but also those laterally and posteriorly; all the muscle fibres and large muscles of internal viscera as well. We may easily confuse myomere with viscemere because the majority of the viscera are composed of more or less muscular structure. We wish to apply the term myomere to those muscles which have an osseous fixed point of origin and insertion, the muscles of the viscera being more or less movable, hence the 21st viscemere includes these structures which have a purely motor form, which are subject to visceral misplacements if functions are absent within them. Even tho none of the viscera of this zone should become misplaced, they still remain within this zone so far as our analytical purposes are concerned.

In the oseomere we are dealing with the 1st lumbar vertebra. Any disease or abnormal function of the vertebra above would be usually included in this oseomere.

In the 21st superimposed zone—imposed above the 22d and below the 20th.

The neuromere includes all of those nerves which emerge from the foramen between the first and second lumbar or between the 20th and 21st vertemeres, thus these fibres have a definite path which they pursue to a given point of termination in specific structures. This termination is a question that is decided solely by Innate Intelligence, thru the Innate brain, pursuing a course thru the Innate nervous system, thus determining the exact path of these fibres previous to the infant being born, thus we will see that if there has been prenatal disposition of this structure, according to this latest analysis, the viscemere could not always coincide with

the zone as given you. It is attempted to give you the normal structures, considering that the deposition of every tissue cell has been normal previous to birth. After birth is where we deal with the abnormal, pathological or traumatic conditions, and if such a change takes place after birth, it does imply a neuromere in regard to the zone it may be in, and its termination within specific viscermeres, myomeres, or oseomeres within those self-same zones.

The sensorere would include the same in this zone as it has in all others, having a specific afferent path from origin of its fibre at a tissue cell, to its place of termination within a brain cell. The path of an efferent fibre would be passing between a specific vertemere thence upward to the brain.

The omnemere would include the composite state of all the meres within this one zone. Were we referring to one, and only one, we could call it by a specific name or—Unimere—speaking of one without defining which one.

We might physiologically speak of many meres under the head of Combineuroforun.

22nd Zone

3rd lumbar vertebra is the 22nd vertemere and is in the 23rd zone.

22nd dermamere includes a peculiar strip of fibres (tissue cells) placed between the 21st above and 23rd below.

The shape of this zone is peculiar in that it is narrower in front than in the rear, taking an opposite shape to that of the 21st dermamere. The sensations that will be interpreted as having a common point of origin in this dermamere are prominently brought out under the subject of paralysis, wherein afferent function is made abnormal. The question of lack of motion in tissue cells, where lack of expansion takes place and where the tissue cells, on the reverse, shrivel, as it were, is a condition which follows the motor functions (which are efferent from this locality) becoming abnormal.

In discriminating between afferent and efferent functions of the dermamere we must again bear in mind the relationship which each mind has to the tissue cells. In a measure, educated man can control the functions of these tissue cells when considered as a mass—individually he has no control. As regards Innate mind, then each cell becomes an individual under her commands and directions. You must discriminate as regards quantities of cells involved, where and in what manner.

The 22nd myomere involves a narrow strip of muscular fibres, anteriorly, gradually increasing in width from above downward, proceeding from anterior to the posterior. Thus it will be seen that loss of motion, following abnormal functions, will be more manifest on the posterior than anterior.

The 22nd nueromere involves the idea of a point of exit and entrance of fibres leaving and going into the spinal foramin, and from there having an afferent distribution over the entire zone;

afferent, having their congregation gathered together into one common cable, and having its point of exit at the foramen above or below the point where the efferent has its exit. These two divisions of fibres hold good throughout the entire spinal column; afferent fibres will have their point of ingress at the foramen above those which have their egress.

While I state that the afferent is above, I do not wish to imply that such is always a positive fact, but speaking of it, in dealing with two individual fibres, they both have a common point of periphery, i. e., to complete one cycle, an efferent fibre will come out of one foramen and go to a tissue cell in which an afferent fibre has its point of origin, then its path will lead it back to the spine and it will enter above or below the one which went out.

As regards the functions of the nerves themselves. Nerves are tissue cells, just as muscles and viscera are, consequently they are subject to the primary nine functions, the same as every other cell in the body, so they have their fibres entering and leaving them (the completions of many cycles) the same as any other tissue cells. The nerve fibres, themselves, are subject to all pathological changes, as found in other tissue cells, consequently we regard them as subject to the laws of cycles in their normal and abnormal conditions, the same as other tissues.

If the spinal cord is involved (within the 22nd zone) in a pathological change, where will we adjust for it? The nerve fibres having exit efferently at the 22nd vertemere is one place where the functions of the 22nd portion of segment of the cord are controlled. With the spinal cord pressure it can be here or any place above this or below the foramen magnum. Generally speaking, the segment of the cord which is within a certain vertemere has its functions controlled by a current having exit at the same vertemere (understanding that the efferent fibres have below and the afferent above), thus the cycle would be around the pedicle of that particular vertemere on either side.

As for the nerves involved in such a neuromere, if they were involved in peripherally, the location of cause would be within the same vertemere, the same as for a particular portion of the spinal cord. How these functions may be involved is another phase of analysis, taking in a slightly different set of impressions, consequently there will be a slightly different interpretation.

In the term "neuralgia" we have a name which is supposed to express an equivalent condition wherein "pain is felt in nerves," only. Usually the nerves which are affected in such a state are those which are known as "highly differentiated." A notable example of this character is the burning pain of *tic douloureux*; another is the "hot flashes." These are but quantity interpretations, consequently are subject to the whims and fancies of the individual experiencing them.

The 22nd viscemere would include such portions of the intestines and bowels as are within this small, narrow zone. In a measure its area is restricted in the male, its fibres separating and

spreading out to the generative organs and reproductive glands. In the female, practically the same can be said, inasmuch as the reproductive organs, sexual glands and viscera have a common point of origin in their neuromeric division from this vertemere.

The sensomere, likewise, will include all fibres having a common point of origin in any tissue cell of any reproductive or sexual gland, organ or viscera, in either sex, black or white, corpulent or lean, etc.

23rd Zone

The 23rd zone includes the 23rd vertebra. It is in the 23rd zone.

The 23rd dermamere includes a wider area anteriorly than posteriorly. When we reach the front we assume very irregular shapes in the distribution of the dermamere. The 23rd takes in quite a wide strip anteriorly, as well as a large part of the anterior surface of both legs; this also includes the dermameres around the sexual organs, both male and female.

The 23rd myomere involves not only the muscles of the abdomen but also those of the internal viscera, as well as the muscles, large or small, surrounding the sexual organs of either sex; also a large portion of the muscles of the anterior portions of the thighs and the lower legs, also superior portion of the feet, inclusive of the toes.

The 23rd viscemere includes not only the organs of sex, internally and externally, but also the internal portions of the bowels or intestines; understanding that there will be a distinct line drawn between the 23rd and 24th zones. The 23rd is superior, in a portion, to that of the 24th; for instance, the uterus may be and is in the 23rd zone, although the bladder of the same individual is in the 24th zone.

Again, the muscles of the anterior portion of the thigh are in the 23rd zone, whereas those of the posterior region are in the 24th. Thus it will be seen that there is some irregularity in these meres, as we have attempted to outline them—they will need much further work to classify the various positions, although as it exists now, we can define every border broadly.

The oseomere includes only the vertebra named in this connection. The superimposed zone (23) is about the 24th, although it is hardly correct to say superimposed zone here because a large quantity of the surface of these meres are more anterior than posterior, and but very little superior, comparatively.

The neuromere includes the 23rd pair of fibres which have exit between the 22nd and 23rd vertemeres. The point of distribution of the 23rd neuromere would be the abdominal muscles; the 23rd oseomere; 23rd dermamere; 23rd viscemere; 23rd myomere; include all its divisions and the sensomere would involve every tissue cell in the divisions already enumerated.

In our discussion of the 22nd neuromere we made a classification of the distribution of afferent and efferent fibres; the afferent emitting above, the efferent below certain vertebræ. What I wish

to state more clearly now, is that each foramen will emerge both afferent and efferent fibres. In this way no one foramen emits all afferent, and another foramen all efferent. Each foramen issues both kinds yet not one special set.

24th Zone.

The 24th zone includes the 24th vertemere and its corresponding affected meres.

The 24th dermamere is of a peculiar triangular shape in front formed by a horizontal superior line to the lower lines following the groins, which reach a common inferior center at the superior portion of the pubic arch. Posteriorly the dermamere includes all of the buttocks and the posterior half of both limbs, also soles of the feet.

It will be seen that so far as dermameric impressions are concerned the 23rd and 24th dermameres play important roles in this consideration. On its efferent transmission of function, it is not unusual to find subluxations at the first or second lumbar, consequently functions abnormal with the 23rd and 24th dermamere may have a subluxation at the 20th or 21st, or even the 22nd vertemere.

This is brought out in the study of the child in utero—the distribution of the so-called spinal nerves not being subject to a general rule. Sometimes in this distribution, the nerve that would ordinarily have exit at the proper foramen might in the next individual be above or below that. Thus, while Innate has general lines and regulations and expresses herself in a general manner, yet we find she adapts herself, when circumstances prevent her carrying out her original plans.

The 24th myomere would include the muscles of the buttocks; posterior portion of the thighs to the calf of the leg, also those muscles (the large fibres of which are found within this triangular-shaped zone), anteriorly on the abdomen.

The 24th viscemere includes such sexual organs which are not enumerated within the 23rd; also includes the bladder and such portions of the rectum and other bowels and intestines which are within this zone.

The 24th oseomere would include the pubes, the larger portion of the Iliac (also included in the 23rd) and the 24th vertebra, as well as the balance of the Ossa Innominata (not mentioned in 23rd). The 24th oseomere also includes the two femora, fibulæ and tibiæ bones, also the tarsal, metatarsal and phalanges of the feet.

The 24th neuromere includes the distribution of the fibres having their exit superior to the 24th vertebra or the 24th vertemere, having their distribution into and around the 24th myomere, viscemere or oseomere, which would include the lowest zone in the body, inclusive of the lower limbs.

The 24th sensomere can be seen to include a very large portion of the body, proportionately to any other sensomere in this meric system it is an all-important consideration in this instance. The number of fibres emitting in this neuromere make the efferent half,

from which the afferent sensomeric half of the cycles have their origin, becomes a very large one—a much larger number than found in others. We might include at least one afferent fibre for each function being expressed in each tissue cell, consequently each tissue cell may have at least eight afferent fibres.

25th Zone.

Includes the sacrum as found in adult life, inasmuch as slight difficulty is found with the sacrum or the 25th zone during youth, we do not take it into consideration except as we find abnormalities existing, so I consider this entire bone (five divisions) as one segment.

The 25th oseomere embraces the sacrum and it is the 25th vertemere—or the 25th vertemere includes the sacrum.

The 25th dermamere includes the small area just posterior to the sacrum and is triangular and small in shape, as is the 25th vertemere, base superiorly and apex inferiorly.

The 25th myomere is a minus quantity.

The 25th viscemere is equivalent to the 25th myomere.

The 25th oseomere includes the sacrum only.

The 25th neuromere is inclusive of the nerves which have emergence from between the 24th vertemere inferiorly and the 25th superiorly.

The 25th sensomere includes only those fibres which have point of afferent origin from the 25th oseomeric tissue cells, which would be from the tissue cells of the sacrum and that alone. Usually the sensomere in this region is very prominent and very sensitive.

26th Zone.

Includes that limited area surrounding the coccyx—the coccygeal vertebræ (one, two, three or four).

The 26th dermamere includes that tissue right posterior to the coccyx, having point of origin on the 26th neuromeres, from between cornua of inferior of sacrum—we say “usually” includes, etc., for the reason that the cornua are rarely found—the coccyx more frequently being abnormal.

The 26th myomere does not exist.

The 26th viscemere is also absent.

The 26th oseomere includes the coccygeal vertebræ alone.

The 26th sensomere includes only such fibres which have origin from the 26th osseous tissue cells.

We have followed a systematic course of illustrations of the 26 zones of the human body; we have allowed no one particular set or portion to escape our observation, and while at the present moment some of these zones do not appear clearly defined, you understand that we will continue to improve, enlarge upon and complete them in every sense. We will see that the lines are as definitely and clearly drawn as words can make them.

It is impossible at the present date to make any specific drawings which will adequately express the depth or thickness of lines which each position takes. I have many most excellent drawings of the normal ideal man. Among the pictures on our walls we have two perfectly myomeric divisions dealing with man as he is normally. You can understand that the meric drawings will have to be modified considerably to conform to those illustrations of the present day.

This meric system is based upon not less than 13 years of observation in dealing with man Chiropractically, consequently no one is more able to say this is, or is not, than the one who has studied these points from all sides, yet there is much more perfecting of detail and much food for thought and probably many changes will be made before our ideal meric system can be made to conform to the ideal or normal man.

From our earliest research we observed that everything in man centered or was based upon specific plans. Much like a building, externally, we have brick with plaster between; interiorly we have a smooth plaster and our building is divided into rooms with one or more floors, etc.—each subdivision of the building has its place and connection with the whole.

As we observed man, the thought came to our minds as quickly as it did to the architect in building the building. There had to be a place for the viscera, muscles, bones, nerves, etc., hence man must be subject to a specific plan; consequently with the idea in mind that man was a machine and mechanically builded, we began searching for the specifications along certain definite lines or divisions.

With this thought constantly in mind, in every question asked, in every analysis made, in every subluxation palpated, with every adjustment given, with every result hoped for, looked for and seen, we constantly kept observing the fact that man was subject to a specific divisional character—hence the existence of the meric system—not so much because of brains or mentality working on it, but of most keen discrimination, study and observation. The work is such as you can do provided you have the ability to look and see. You can proceed to develop new ideas, the same as others have done, if you will but think, and think deeply—see things to think about—they are before you constantly.

Many new ideas need to be worked out. Naturally, having the thought in mind that man was based on a system, the next idea was to prove that such was a fact. To prove—not upon a dead body which had no feeling, gave forth no response, could not tell us if we had struck a sensitive place, nor upon which could effects be demonstrated if found, but we say clearly that if we wished to prove the philosophy, as well as the physiology, it became necessary to devise some system by which a living, feeling man, who could answer our questions, could be more closely observed.

As results show, necessity was the mother and father of invention, consequently the boy, the product of the mother and father, devised the nerve tracing system. As a result again of most close

observation there, not allowing a wrong tracing to side-track us, not allowing the crudeness of the work to switch us off, but by carefully studying, perfecting, completing and proving this work, we have been able to place before you the meric system, based upon thousands of nerve tracings from and to every portion of the body.

1st VERTEMERE.

- | | |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 1st. Cervical Vertebra. | 1st. Meric Zone. |
| Tissues involved :—Brain, optic tract to commissure, 8 cranial bones, scalp, atlas, upper ear, ossicles, upper forehead. | |
| Diseases which may be caused by subluxation of Atlas. | |
| 1st. Diseases affecting the substances of the brain. | |
| Abscess of brain. | Acute softening of. |
| Tuberculosis of brain. | Tumor of brain (see K. P.) |
| Cerebro-Meningitis (see C. P.) | Cranio—tabes—wasting of cranial bones. |
| Hydatids of brain—cyst like tumor. | Encephalocele—Hernia of brain. |
| Inflammation of brain—Encephalitis. | |
| Acromegaly. | |
| Hydrocephalus—water on brain. | |
| Polio-Encephalitis. | |
| 2nd. Diseases of brain affecting the mind. | |
| Analgesia—minus sense of pain. | Aphasia—loss of use of words. |
| Apraxia—mind blindness. | Aprosexia—want of power to fix attention. |
| Delirium—mania. | Delusion, Hallucination, Illusions. |
| Melancholia. | Dipsomania—alcohol craze (S. P., K. P.) |
| Drowsiness—stupor (K. P.). | Headache (neuralgic). |
| Hebetude—dullness of intellect. | |
| 3rd. Diseases of brain affecting general motor functions. | |
| Ataxia (C. P.) | Epilepsy (P. P.) |
| Coma (K. P., Lu. P.) | Neuralgia (local). |
| Hysteria (P. P.) | Vertigo (S. P., H. P.) |
| Psuedo Angina. | |
| 4th. Spasmodic Diseases. | |
| Chorea (C. P.), St. Vitis Dance. | |
| Puerperal Convulsions (P. P.) | |
| Nodding spasm. | |
| Hysteria. | |
| 5th Disease of head and scalp. | |
| Abnormal fontanellis. | Abnormal movements or fixity of head. |
| Acromegaly. | Hydrocephalus (K. P.) |
| Rachitis (C. P.) | Ulceration of head and forehead (K. P.) |

6th. Diseases of the ear.

Abscess of Aural Meatus (K. P.)	Buzzing of ear.
Catarrh of ear.	Deafness (wax).
Inflammation of drum of ear.	Discharge from ear.
Throbbing in ear.	Effusion of blood from ear.
Ear ache.	Polyp of ear.

7th. Miscellaneous Diseases.

Constipation Headache. (Lumbar).	Morphine habit (S. P., K. P.)
Hemicrania.	Somnambulism.
Ocular Headache (S. P.)	Vertigo (S. P.)
Sunstroke (K. P.)	Disease of Spinal Cord.
Athetosis.	

2nd VERTEMERE.

2nd. Cervical Vertebra.

2nd. Meric Zone.

Diseases involved:—Blends with atlas, brain, ears, portions of face, back portion of neck.

Diseases which may be caused at Axis—

Convulsions (C. P., P. P., K. P.)	Epilepsy (C. P., K. P., P. P.)
Hysteria (C. P., K. P., P. P.)	Facial Paralysis (L. C. P., C. P.)
Facial spasm (L. C. P.)	Locomotor ataxia (At., C. P.)
Spasmodic torticollis.	Acne (K. P.)

3rd VERTEMERE.

3rd. Cervical Vertebra.

3rd. Meric Zone.

Tissues involved—Blends with 4C., trifacial nerve, nasal passages, retina, teeth and cheeks.

Diseases which may be caused at 3rd Cer.

Nasal catarrh and headache. (4C.)	Amaurosis—dis. of cornea and optic nerve. (4C.)
Boils of upper neck. (K. P.)	Contracture of muscles of neck (S. P.)
Anosmia—loss of smell. (4C.)	Cramps of muscles of neck. (A. P., C. P., P. P.)
Nasal catarrh, acute or chronic. (4C.)	Stenosis of nares and nasal passages. (4C.)
Abscess (retropharyngeal). S. P.)	Erysipelas of head and face. (K. P., U. A. P.)

4th VERTEMERE.

4th. Cervical Vertebra.

4th. Meric Zone.

Tissues involved—Optic nerve (ant. to chiasm), retina, cornea, nasal passages, 14 bones of face, mouth, teeth, gums, tissues of face, nasal pharynx, post, nares, eustachian tube, jaw, outer ear, hyoid bone.

Diseases of Eyes—Cause at 4th Cervical.

Amaurosis—dis. of cornea and O. N.	Asthenopia—weakness of sight. Color blindness. (At.)
Conjunctivitis. (K. P.)	Epiphora—water eye. (K. P.)
Cornea, dis. of. (S. P.)	Hemianopia—loss of ½ retina vision.
Dis. of tear duct. (S. P.)	Iridoplegia—lack of adaptation to light.
Optic atrophy.	Tears, obstruction of; flowing of.
Weak sight.	Myopia—short sight.
	Defective vision, outer ½ of eyes.

Diseases of nose at 4th Cervical.

Epistaxis.	Parosmia—loss of smell. (At.)
Coryza. (K. P.)	Polypi of nose.
Discharges from nose.	Regurgitation of fluids through nose.
Dis. of Eustachian tube. (At. or Ax.)	Rhinitis (atrophic-Hypertrophic.)
Influenza, affecting nose. (C. P., K. P.)	Sneezing, continued. (S. P.)
Mucous membrane, disease of.	Stenosis—stricture in nose.

Disease of face due to 4th Cervical.

Barber's itch. (K. P.)	Abnormal redness of cheeks. (H. P., K. P.)
Herpes—skin eruption. (K. P.)	Diplegia—facial paralysis.
Palsy of face.	Lock jaw.
Boils—face. (K. P.)	Tic doloureux.
Verruca—warts.	Psoriasis—scaly tetter. (K. P.)
	General Eruption. (K. P.)

Diseases of mouth found at 4th Cervical.

Abnormal dentition. (S. P., P. P.)	Disease of teeth.
Gums—spongy, ulcerated and bleeding.	Sordes on teeth. (K. P.)

Miscellaneous diseases with cause at 4th Cervical.

Acne. (K. P.)	Anæmic headache. (K. P., At.)
Lupus. (K. P.)	Boils—face and middle neck. (K. P.)
Neck muscles.	Chicken pox. (K. P., C. P.)
	Headache, nervous. (At., S. P., P. P.)
	Smallpox. (K. P., C. P.)
	Erysipelas. (K. P.)
	Tophi on ear. (K. P.)

5th VERTEMERE.

5th. Cervical.

5th. Meric Zone.

Tissues involved—Overlap 4th eye, nose, face, teeth, jaw, post. and lateral neck muscles, hyoid bone.

Tumors, cancers, eruptive fevers, so blends with 4th and 6th that no dis. can be listed with 5th accurately.

6th VERTEMERE

6th. Cervical.

6th. Meric Zone.

Tissues involved—Neck and adjacent tissues, superior part of shoulders, post. of mouth, region of sterno-mastoid, ant. of arm and sup. bronchii.

Diseases of hand, arm and shoulder found at 6th Cervical.

Inability to move arm. (A. P.) Armpit tenderness. (A. P.)

Cramps of writing. (A. P.) Swelling of clavicle. (U. H.

Coldness of hands. (A. P., H. P.)

Elephantiasis—hands or arm.

Erysipelas of upper arm. (K. P., A. P.) (A. P., M. C. P.)

Atrophy of hands. (A. P.)

Arthritis deformans. (A. P., C. P.), if general.

Humerous, atrophy, texostosis, fractured. (A. P.)

Shoulder joint, pain, stiffness of.

Myoclonia—upper arm. (At.)

Radius, enlargement, osteitis. (A. P.)

Rheumatism of shoulder and muscular. (A. P.)

Felon. (K. P., A. P.)

Diseases of bronchii by 6th Cervical subluxation.

Asthma—higher zone. (A. P., Lu. P.) Inf., obstruction, dilation of bronchii. (S. P., A. P.)

Bronchitis—bronchial cough (S. P., A. P.) Bronchial pneumonia. (A. P.)

Hay Fever. (4C.) Dyspnœa. (L. H. P., Lu. P.)

Dis. of sterno-mastoid.

7th VERTEMERE.

7th. Cervical.

7th Meric Zone.

Tissues involved—Post. neck muscles, upper part of arm, Deltoid muscles, trachia, radius.

Diseases caused by 7th Cer. subluxation are blended with 6th C. and 8C. No disease is especially listed here.

8th. Vertebra.

1st. Dorsal.

8th. Meric Zone

Tissues involved—Shoulder, arm muscles, humerus, bronchi, scapula, clavicle, manubrium and 1st rib, ulna, carpal and metacarpal.

8th. Meric diseases of—Bronchi, Asthma (9th and 10th zones).

Difficult bronchi breathing.

Bronchitis (acute).

Bronchial cough.

Dyspnœa. (Lu. P.)

Hay fever. (4C.)

Bronchial hemorrhage.

Dis. of sternum (9th and 10th zones).

1st. Dorsal diseases of the heart (1-2-3 may indicate heart).
 Felon. Aneurism of the aorta.
 Distorted fingers.

9th VERTEMERE.

2nd. Dorsal Vertebra. 9th. Meric Zone.
 Tissues involved—Heart, pericardium, aorta, lower arm and
 hand muscles, bronchi, radius and ulnar bones, carpal and meta-
 carpal bones, 2nd rib.

Diseases of heart due to 2nd Dorsal subluxation.

Angina pectoris.	Regurgitation, dilatation.
Arythmia, hypertrophy.	Palpitation, cardiac thrills.
Diseases of arms with cause at 2nd Dorsal.	
Armpit tenderness.	Coldness of hands.
Cramps of hands, arms or fingers.	Erysipelas. (K. P.)
Felon. (A. P., K. P.)	Swelling of hands. (K. P.)
Clubbed fingers. (K. P.)	
Rheumatism. (K. P.)	
Verruca—arms, hands, shoulders.	

10th VERTEMERE.

3rd. Dorsal. 10th. Meric Zone.
 Tissues involved—Lungs, pleura, lower heart, 3rd pr. rib,
 lower sternum, breast, nipples and chest.

Diseases of pleura and lungs.

Dyspnœa (painful and rapid).	Gas poisoning. (K. P.)
Hemorrhage.	Phthisis—acute or chronic.
Pleurisy—acute, chronic, inter- lobar.	(K. P.)
Pneumonia—acute or chronic.	Pleuro-pneumonia. (K. P.)
(K. P.)	Pleurodynia.
Pulmonary stenosis.	Dis. of lungs in general. (K. P.)
	P.)

Diseases of chest and breast.

Breast tumors and cancers.	Chest deformities.
(K. P.)	Pleural emphysema. (K. P.)
Hydro-thorax. (K. P., H. P.)	Lactation, dis. of. (K. P.)
Mammary gland.	Intercostal bulging.
Intercostal neuralgia.	Pigeon breast.
Mediastinal tumors. (K. P.)	Tuberculosis. (C. P., K. P.)
Gen. dis. of thorax.	

Diseases of the heart found in 10th zone.

Aneurism of aorta.	Bradycardia, tachycardia.
Dilatation, endocarditis.	Cardiac dropsy (K. P.), fatty heart.
Mitral incompetency.	Palpitation, pericarditis.
Angina pectoris.	Valvular dis.

11th VERTEMERE.

4th. Dorsal.

11th. Meric Zone.

Tissues involved—Liver, gall-bladder, bile-ducts, 4th pr. ribs, lower portion of lungs.

Diseases of the liver.

Abscess, cancer, dropsy. (K. P.)	Atrophy, cirrhosis, enlargement.
Hyperæmia, tuberculosis. (K.P.)	
Jaundice—obstructive, toxemic.	Biliousness (S. P.), catarrh.
Fatty degeneration.	Bile-duct, gall-stones, stenosis.
	Gen. dis. of.

12th VERTEMERE.

5th. Dorsal.

12th. Meric Zone.

Tissues involved—5th pr. of ribs, gen. X heat mere.

Diseases of brain-spinal cord, nerves.

Locomotor ataxia. (At.)	Convulsions. (Ax., K.P., P.P.)
Nervous exhaustion.	Spinal Meningitis. (At.)
Diplegia, hemiasthenia. (At. or Ax.)	Poliomyelitis.
Hemiplegia—infantile. (At. or Ax.)	

General diseases.

Anemia, chills, chloasma. (K. P.)	Imperfect nutrition. (S. P., K. P., P. P.)
Elephantiasis. (Ax-local.)	
Rheumatism, Obesity. (K. P., local.)	Gout (K. P.), hemorrhage (Local).
Tuberculosis (3D), typhoid (P. P., K. P.)	General excessive heat.

Miscellaneous diseases.

Acne. (K. P.)	Athetosis (local), blackheads. (K. P.)
Cramps (local), eruptions. (K. P.)	Dropsy. (K. P.)
Heat rash (K. P.), rachitis. (K. P.)	Scarlet fever. (K. P.)
Influenza. (M. C. P., K. P.)	Pleurodinia. (Lu. P.)
Pus and malignant-gangrene pus. (K. P.)	Typhoid fever. (P. P.)

13th VERTEMERE.

6th. Dorsal.

13th Uleric Zone.

Tissues involved—Anterior portion of body, narrow posteriorly. Blends with 14th vertemere and nearly identical with the 14th.

14th VERTEMERE

7th. Dorsal. (See 13th Vertemere.)

14th. Meric Zone.

Tissues involved—Stomach, esophagus, pharynx, larynx, vocal cords, thyroid glands, omentum, uvula, tonsils, gums, palate, tongue, from dorsum forward, glands of mouth and throat and stomach, eyeball, iris, pupil, cornea, mucus membrane of mouth and stomach, 7th pair of ribs blends with 13th vertemere, salivary glands.

Diseases of throat.

Canker sores. (K. P.)	Diphtheria, diphtheroid. (6C.)
Catarrhal gastritis. (K. P.)	Tonsilitis, follicular-suppurative.
Croup. (6C.)	Dysphagia.
Cough, stomach and throat.	Enlarged tonsils.
Pertussis. (Lu. P., K. P.)	Glossitis—inf. of tongue.
Mumps.	Stricture of throat.
Quinsy.	Dis. of mouth and lips.
Salivary glands, dis. of.	Soreness, ulcerations and inf. of throat.
Stuttering and stammering.	Tuberculosis. (Local.)
Larynx, catarrh, of, tumors of.	

Diseases of the eyes (R. side).

Anisocoria.	Hippus—tremulous contracture of eyeball.
Cornea, affections of.	Atrophy and hypertrophy of eye muscles.
Diplopia—double vision.	Nystagmus — oscillation of eyeball.
Dropsy of eyeball. (K. P.)	Occulo—motor paralysis.
Exophthalmos — retraction of eyeball.	Strabismus.
Exophthalmos — protrusion of eyeball.	

Diseases of esophagus and stomach.

Aphthæ—thrush of esophagus. (K. P.)	Dyspepsia.
Appetite, minus or plus.	Dystrophes—faulty nutrition. (K. P., C. P.)
Belching of gas.	Esophagus, inf. of, dis. of.
Biliousness. (Li. P.)	Gastralgia—pain in stomach.
Hemorrhage from stomach.	Gastric neurosis.
Catarrh of stomach. (K. P.)	Gastritis.
Cancer of stomach. (K. P.)	Periodic vomiting. (P. P.)
Cestodes—stomach worms. (I. A.)	Pyloric stenosis.
Cramps in stomach.	Tapeworm.

Diseases, miscellaneous.

Acne. (K. P.)	Sick headache.
Dizziness. (At.)	Hiccough. (Spl. P., 8D.)
Dipsomnia. (At., P., K. P.)	Morning Sickness.
Goiter—exophthalmic. (6C.)	Nervous dyspepsia.
Rheumatism, stomach.	Thrush. (K. P.)

15th VERTEMERE.

8th. Dorsal.

15th. Meric Zone.

Tissues involved—Pancreas, upper spleen, diaphragm, duodenum, blends with 14th and 16th zone, omentum, 8th pair of ribs.

Diseases of the diaphragm.

Breathing, diaphragmatic.	Hiccoughs.
Paralysis of.	Omentum, dis. of.
Hernia of.	

Diseases of the spleen.

Calculi.	Gastric juice, abnormal.
Catarrh of. (K. P.)	Hypertrophy of.
Inflammation of.	Hyperæmia of, in fevers.

Diseases of the intestines.

Duodenal ulcer.	Infraction—obstruction. (2L.)
Duodenitis.	Tapeworm.

Diseases of the glands.

Pancreatic cysts.	Pancreatitis.
Calculi.	

16th VERTEMERE.

9th. Dorsal. 16th. Meric Zone.

Tissues involved—9th pair of ribs, spleen, duodenum, omentum, blends with 15th mere.

Diseases of spleen and intestines, etc.

Catarrh of the spleen. (K. P.)
 Hypertrophy of the spleen.
 Carcinoma of the spleen. (K. P.) Intestinal worms. (2L.)
 Tuberculosis of the spleen. Obstructions. (2L.)
 (K. P.)

17th VERTEMERE

10th. Dorsal. 17th. Meric Zone.

Tissues involved—Supra-renals, upper kidney, eyelids, 10th pair of ribs.

Diseases of—Addison's dis. (See those listed under 11th Dor.)

18th VERTEMERE.

11th. Dorsal. 18th. Meric Zone.

Diseases under the 18th meric zone.

Bright's diseases.	Diabetes melitus. (Li. P.)
Albuminuria.	Hydronephrosis.
Amaloid kidney.	Gleet.
Ascites. (P. P.)	Gravel.
Brick-dust deposit.	Hemorrhage of kidney.
Renal calculi.	Lead poisoning. (P. P.)
Chloasma. (C. P.)	Nephritis.
Chlorosis.	Nephroptosis.
Cholerine. (P. P.)	Pyalitis.
Chyluria. (2L., P. P.)	Pyelonephrosis.
Renal colic.	Septicemia.
Coma, uræmic.	Uremia.
Convulsions, uræmis.	Urination, abnormal. (4L.)
Diabetes, insipidus.	

Diseases of the skin under 18th meric zone.

Barber's itch. (M. C. P.)	Rashes.
Chickenpox. (5C.)	Rubeola.
Dry tetter.	Scarlatina. (M. C. P., C. P.)
General eruptions. (C. P.)	Scarlet fever. (M. C. P., C. P.)
Eruptive fevers. (C. P.)	Smallpox.
Erysipelas. (Local.)	Ulcers. (Local.)
Psoriasis. (Local.)	Blackheads.
Pustule. (C. P.)	Chloasma.
	Urticaria.

Diseases of the eyelids under K. P.

Cataract. (M. C. P.)	
Blepharitis, inf. of eyelids.	Granular lids.
Epithelemis.	Ptosis.
Dryness, moisture, swelling, verucca.	

Diseases of the intestines under K. P.

Cholera infantum. (2L.)	Dysentery. (2L.)
Chronic diarrhea. (2L.)	Serous stools. (2L.)
Costiveness. (2L.)	

General diseases of the K. P. zone.

Anasarca—gen. dropsy.	Rachitis.
Dropsy. (Local.)	Rheumatism. (Local.)
Hydrocephalus. (At. P.)	Sordes. (M. C. P.)
Hydrothorax. (Lu. P.)	Sweat, abnormal.
Influenza. (C. P.)	Swelling of hands or feet.
Obesity. (At. P.)	Hydrocephalus.
	Glossy skin.

19th VERTEMERE.

12th. Dorsal.

19th. Meric Zone.

Tissues involved—12th pair of ribs, lower portion of the kidneys, end of spinal cord, ureters, serous circulation, and must be considered with the 18th zone, with which it blends.

20th VERTEMERE.

1st. Lumbar.

20th. Meric Zone.

Tissues involved—Upper small intestines, peritoneum, loins, ureters.

Diseases must be considered in connection with those of the 2nd Lumbar.

21st VERTEMERE.

2nd. Lumbar.

21st. Meric Zone.

Tissues involved—Small intestines, leg muscles, vermiform appendix, peritoneum, ovaries and cæcum.

Diseases of the abdomen.

Abdominal prolapsus.	Diarrhea. (K. P.)
Apthæ of intestines. (K. P.)	Dropsy—ascites. (K. P.)
Appendicitis.	Enteralgia—colic. (P. P.)
Cancer of intestines. (K. P.)	Enteritis—inf. of intestines.
Catarrh of intestine. (K. P.)	Varicose veins of the leg.
Colitis—inf. of int.	Tuberculosis of peritoneum.
Constipation. (P. P., Li. P.)	(K. P.)
Lumbago.	Tumors, abdominal. (K. P.)
	Neuralgia.
	Rheumatism, hips, muscles and joints.

Diseases of the sexual organs in the 21st meric zone.

Abscess of the ovaries.	Dropsy of ovaries.
Diseases of childbed.	Dysmenorrhea.

22nd VERTEMERE.

3rd. Lumbar. 22nd. Meric Zone.

Tissues involved—Sexual organs, bladder, testicles, ovaries, lower small intestines, appendix, cæcum, colon, hepatic and splenic flexures, abdominal muscles, anterior thigh muscles, knee, and broad ligaments.

23rd VERTEMERE.

4th. Lumbar. 23rd. Meric Zone.

Tissues involved—Large intestines, post, thigh, legs, feet and colon and bladder, hip bone, uterus.

24th VERTEMERE.

5th. Lumbar. 24th. Meric Zone.

Tissues involved. Rectum, uterus, buttocks.

Diseases.

Hemorrhoids.

Menstrual disorders.

Utero-version.

Prolapsed uterus.

25th VERTEMERE.

Sacrum. 25th. Zone.

Tissues involved—Rectum, anus, buttocks, uterus, posterior, thigh.

Diseases found in the 21st, 22nd, 23rd zones listed in five divisions as:

Diseases of the abdomen.

Appendicitis.	Chronic dysentery. (K. P.)
Apthæ. (K. P.)	Chronic peritonitis. (L. P. P.)
Ascites—dropsy of abdomen.	Colic — flatulent, intestinal,
(K. P.)	mucous. (K. P.)
Bladder, dis. of.	Enteritis. (L. P. P.)
Cholérine. (K. P.)	Hernia, abdominal.
Cholera infantum.	Mesentery, dis. of.
Bubo—inguinal tumor. (K. P.)	Tumors of abdomen. (K. P.)
Strangulated hernia.	Typhoid fever. (C. P., K. P.,
Tympanitis.	P. P.)
Chronic diarrhea.	

Diseases of the Sexual organs.

Abortion.	Cancer of womb. (K. P.)
After pains.	Chronic inf. of womb.
Catarrh of womb. (K. P.)	Convulsions, puerperal. (Ax.
Chordee.	P., C. P., K. P.)
Fallopian tubes, dis. of.	Seninal emissions.
Flooding.	Flexion of uterus.
Gleet. (K. P.)	Gestation, abnormal.
Headache, periodic. (At. P.)	Gonorrhea. (K. P.)
Menstruation, abnormal.	Impotency.
Morning sickness. (S. P.)	Ovaritis.
Loss of sexual desire.	Pregnancy, dis. of.
Syphilis. (K. P.)	Soft chancre.
Testicles, dis. of.	Sterility.
Versions of the womb.	Tumor—ulcer of the womb.
Leucorrhea.	(K. P.)
Abscess of vulva. (K. P.)	Delayed puberty.

Diseases of the bladder.

Hypertrophy.	Abnormal urination. (K. P.)
Inf. of bladder.	Gravel in bladder. (K. P.)
Tuberculosis of bladder. (K. P.)	Urethral inflammation.

Diseases of the rectum.

Cancer. (K. P.)	Costiveness.
Rectal fissure.	Piles. (4 L. 5 L.)
Ulceration of anus. (K. P.)	Condylomata-warts of rectum.

Miscellaneous diseases of the 21st, 22nd, 23rd zone.

Dropsy, hydro pyosaplinx.	Bedsore. (K. P.)
(K. P.)	Festination.
Periostitis of femur.	Hernia or groin.
Groin, enlarged glands of. (K.	Lead poisoning. (K. P.)
P.)	Lumbo-abdominal neuralgia.
Knee joint dis.	Salpingitis.
Lumbago.	Typhoid fever. (C. P., K. P.,
Saltatory spasm.	P. P.)
Ulcers of leg. (K. P.)	

23rd and 24th VERTEMERES.

4th and 5th Lumbars.

23rd and 24th Meric Zones.

Tissues involved: Rectum, Thigh, Uterus, Post. Leg Muscles, Bones of Feet, Femur, Tibia, Fibula, Pelvis, Colon, Bladder, Vagina, Prostate Gland and Nates.

Diseases of the bladder under this zone are:

Acute catarrh.
Incontinence of urine.

Dysuria.
Stricture of urethra.

Diseases of the rectum and lower bowels:

Anus, fissure of.	Aphæ, rectal. (K. P.)
Constipation. (U. P. P.)	Catarrh of bowel. (S. P., K. P., U. P. P.)
Enteritis lower zone of (U. P. P., P. P.)	Enteroptosis.
Piles, blind, protruding, itching.	Cancer, neuralgia, syphilis of rectum. (K. P.)
Rigid recti muscles.	Stools, abnormal.
Tumor, lower zone. (K. P.)	

Diseases of feet, legs, bones of:

Arthritis deformans. (K. P., local.)	Atrophy of.
Chronic (deformans) rheumatism. (K. P.)	Cold feet. (K. P., P. P., C. P.)
Cramps in feet or toes. (S. P., P. P.)	Gout in feet or toes. (K. P.)
Ingrowing toe nails.	Milk leg—ulcers of leg. (K. P.)
Lumbago. (U. P. P., P. P.)	Muscles of leg, Atrophy, Hypertrophy, Sciatica.
Neuralgia, planta, lumbo, abdominal.	Stiffness of ankle, or calf. (P. P.)
Stoppage gait.	Torsalgia.
Swelling of feet. (K. P.)	

Diseases of the generative organs:

Chancre.	Chronic peritonitis.
Dismenorrhea.	Masturbation.
Varicocele.	

Miscellaneous diseases:

Boils on buttocks. (K. P.)	Coccyodynia.
Prostate gland, dis. of. (L. P. P., Sp. P.)	Meteorism.

SUPERIOR SYSTEMATIZATIONS.

In the Meric System, we offer two divisions: Superior and an Inferior Meric System, one-half having precedence over the other; one makes and the other expresses. We offer the following quotations mainly to prove that our clinical deductions have been proven partly true by anatomical vivisectional experiments by men high in scientific ranks.

We do not make these quotations purely to sanction all they say is true, but for the above reason only.

The quotations are extracted from Morat on "Physiology of the Nervous System," an authority of which we believe there is no better, in the chapter on "Superior Systematizations."

"The excitable area, in so far as it is motor in function, produces heat; this same area, in so far as it is vaso-motor, preserves (vaso-constriction) or loses (cutaneous vas-dilatation) this heat. The equilibrium which regulates this heat and keeps it at a constant level will therefore depend on an agreement established between these component elements. An agreement like this between such different motor effects necessarily presupposes, in the living being, a sensory *phenomenon* naturally capable of coördinating them."

Realizing as we do now that one is productive and another preservative or losing, "an agreement like this between such different motor effects necessarily presupposes, in the living being, a sensory phenomenon naturally capable of coördinating them." In a living body there is a sensory "phenomenon" which will harmonize the creation in one lobe with the preservative or loss effects in another. Those words tell nothing to a person analyzing them. Presupposes—a supposition. Presupposition.

"The cortex may certainly contribute to the regulation of the temperature, and may take part in the struggle against cold which we call conscious. But this regulation may, and usually does, take place without its intervention, by an *unconscious* process, of which the preceding associations give us merely a model in the order of consciousness. In the basal ganglia, in the medulla oblongata, even in the spinal cord itself, functional connections arise, whose aim is the same, and of which certain have a preponderating influence."

What more need be said? In the question of my definitions of consciousness and unconsciousness, of the value of ganglia, spinal cord segments, in the creation and making of functions, we have the whole summed in a nutshell in this sentence, "and usually does take place without its intervention, by an unconscious process." You know what unconscious is. Hit a bull in the head with a sledge hammer and it drops in unconsciousness. A person falls in a swoon or fit; they are in a state of unconsciousness, and you scientifically or therapeutically are in a state of consciousness by an unconscious process. Where is this "unconscious" process going on? He tells us, "In the basal ganglia, in the medulla oblongata, even in the spinal cord itself, functional connections arise, whose aim is the same." Not something different, but the same, "and of

which certain have a preponderating influence." Influence, throwing you back again upon that which is hidden—see Webster.

Under the head of Digestive Functions, and still dealing with Superior Systematization, he says, "The brain has an equal influence on the digestive functions, as will be seen from the following facts."

Many times he states that the innervating functions of the involuntary man were made from the sympathetic nervous system, and the sympathetic nervous system has nothing to do with a brain except as it makes connections by way of fibres formed in the sympathetic ganglia on the side of the spine going into and ending into some spinal cord segment; there they end and start another connection by means of other independent fibres going to the brain; and yet he says, in spite of these facts, "The brain has an equal influence on the digestive functions, as will be seen from the following facts."

Another point can be raised: We know what a brain is. We have studied Gray; how many lobes, convolutions and gyri it has. It is composed of tissue cells. We know that a brain is purely material. Supposing we had a corpse, and he had a stomach and a brain, and he had sense enough (when he lived) to leave the surgeon alone; therefore he has everything he ought to have. Can I "presuppose" that that brain has an equal influence on the digestive functions of the stomach? Has a *brain* any influence on anything? It is what the brain gathered and sent onward that controls things. Were this sentence true, I might hold in my hand the brain of Darwin and say, "Brain of Darwin, lecture to this class." It is not the brain which talks or thinks; the brain is but a mass through which thoughts work. A brain has no "influence" on any digestive function, other than as it becomes a medium through which the controlling intelligence did act.

"By stimulating the cortex in the neighborhood of the sigmoid gyrus, movements of the mouth, the tongue, and the jaws are produced. But if the stimulus is brought to bear on the second convolution (that enveloping the sigmoid gyrus) in the exact prolongation of the crucial furrow, genuine masticatory movements are produced, succeeded by deglutition. Thus a prearranged association is brought into play, which is controlled by this region of the cortex; this association produces the act of mastication. These coördinated movements may also be produced by stimulating the subjacent white substance. This can no longer be done when the crura cerebri below the optic thalamus are stipulated. The association, as regards its most essential factors, must lie, therefore, either in the optic thalamus or in its inferior portion. Stimulation of the posterior part of the floor of the fourth ventricle also provokes swallowing. Stimulation of the optic thalamus elicits coördinated movements of the stomach and of the intestine. These ganglia therefore possess great importance in the association and the coördination of movements corresponding to the vegetative functions, or to those of nutrition."

I speak of this by way of showing that by stimulation of one lobe and that lobe alone he can stimulate the functions entirely throughout the digestive tract and including the small intestine. This shows again the great power of making man complete as a system. Digestion consists of salivation, mastication, deglutition, digestion, and all this can be stimulated through a lobe of the brain. If he wanted to stimulate the muscles of the foot, he would go to another place for it; to stimulate the bowels, another place; to stimulate the right arm, another place; but, if he wants to stimulate the movements which have to do with digestion, he goes to one place which even moves the muscles of the jaw which has to do with the first process of mastication. It is "sympathy" dealing with "unconscious" digestion.

In his next three pages he forgets the statement he makes here, that the brain has to do with the functions. He deals entirely with how the digestive functions are made from the ganglion close to it. There is where function is made, and correlation takes place. In speaking of excitory salivation of our food by stimulation in the brain, he says:

"But pathological or artificial excitation of the brain causes (no doubt by the intervention of the great sympathetic) the saliva to be secreted, and to this the name of cerebral would be much more appropriately applied, since the stimulation in this case would be distinctly a cerebral one."

This author, with his sympathetic nervous system, looking and thinking of that, understanding as he does that sympathy has to do with all the involuntary functions, that a brain has nothing to do, finds in a presupposition by stimulatory effect that stimulating a brain has to do with a secretion of saliva in the mouth. The result is: "But pathological or artificial excitation of the brain does cause this saliva to flow, but it undoubtedly causes it by way and through the paths of the sympathetic nervous system down below." The brain had nothing to do with it except as the brain was subservient to the great sympathetic. The engine does not pull the train; the caboose pushes it. The horse does not pull the wagon; the harness shoves it.

"Stimulation of the communicating branches of the sacral nerves also reinforces the vaginal movements. As regards the vasomotor phenomena, they are under the control of the nervous following the same paths, and of which some cause vaso-dilatation (third and fourth sacral), others vaso-constriction (first and second sacral.). Furthermore, this system of nerves also supplies the penis."

Reinforces, supplied, and innervation are synonymous terms used by physiologists, innervation being most used. We find "innervation" to be a "hidden influence," which applies in this instance. He has not told us *with what* the penis was supplied. I say a pipe supplies the town—with what? Water. A spigot supplies the quart cup—with what? A cask supplies these bottles—with what? Beer. You must show that it supplies something.

Those electric wires supply globes with what? Electricity. He doesn't tell what is supplied; where it comes from, or what is made. You think of "nerve force" as a contradiction, but he doesn't supply this thought.

"Persistent influence of the brain on the spinal cord.—Sensory impressions, more especially when of a lively nature, exert on the superior centers (notably on the brain) an effect which may persist long after they themselves have disappeared."

If the unit is right, then everything built above is correct. If an impression of a lively nature makes a vivid impression upon a mind, why won't one of slower character do likewise?

"Trophic influence of the brain.—The experimental analysis to which the cerebral functions have been submitted has, in the first instance, displayed the relation of the brain with the muscular tissue, whose functional activity it regulates; later, these relations have been extended, like those of the nervous system itself, to a large number of other tissues (vascular and visceral muscles, visceral and cutaneous glands, etc.). This analysis is founded on the anatomical division of our tissues into special cellular orders by easy recognition."

He tells, at one time, the experimental analysis of the brain in its relation to the body had to do purely with superficial muscles. As we read we find it took in a few visceral muscles and then it takes in the relation of the glands, and next they will be stepping into organs and membranes, for he says, "This analysis is founded on the anatomical division of our tissues into special cellular orders very easy of recognition."

"To put it otherwise, the brain governs in a certain manner and to a certain degree the excretion of nitrogen, since, if it be removed, this excretion is diminished."

He admits that quite a number of the unconscious things, involuntary actions, are to be somewhat controlled by a brain. It may be, later, that he may believe all functions are worked by a brain. Given more time and he will know that something besides a brain is working which controls functions. He is fighting to acknowledge that the material brain is controlling more involuntary functions than they had dreamed of, as experiments prove.

"Thus the brain, which before had only been credited with the possession of relations with the muscular tissue, is now seen to extend its action to other tissues. Further, it not only regulates the waste of energy, proper so called (oxydation of the carbohydrates) but also governs the molecular renewal of the elements (histolysis, dislocation of the albuminoids).

"The regulative action of the waste of energy is, in certain determinate conditions, a conscious one. That of disassimilation is unconscious, and operates in the same way as ordinary reflex actions.

"It must be admitted that any plausible explanation of the mechanism employed by the brain in the control of tissue disassimilation is absolutely lacking.

He doesn't say it is not a fact. What "is absolutely lacking"? An "explanation" of the mechanism employed by the brain in the control of tissue dissemination.

"In fact, though we are acquainted with nerves whose stimulation has for direct effect the augmentation of the waste of energy in the tissues and is displayed by an exaggeration of the excretion of carbonic acid (for example, motor nerves of the muscles), we know of none whose excitation would create an augmentation of their histolysis, to the extent of causing an exaggeration of the nitrogenous excretion. The relationship existing between the brain and what is called nutrition of the tissues, a relationship which facts seem to demonstrate, and which we have no reason to deny) cannot be interpreted in so clear a manner as can that existing between the brain and ordinary movement. Experimentally and logically, the intermediaries are unknown to us."

That a brain has, as a cause producer, the power of changing these conditions in a body, we admit, but while we reasonably, logically, and experimentally think that a brain on one side and function on the other side exist, and that they are in some way connected, yet "the intermediaries are unknown to us." The step between; that gap has puzzled millions. That holds and stifles progress therapeutically. Under our equational system, we study clear, definite, and typical cases which rarely occur in individuals as an entity. There is no case but what has more or less nutrition as a combination involved, and when this book takes the control from blood and gives it to the brain, that man is making a remarkable step toward ours.

Man is but composed of multitudinous scientifically and systematically arranged atoms. The unit is the basis, and the unit in this instance is the atom, and many atoms make a system, systems make a man; so we see how important to establish a unit; know that unit normally, abnormally, pathologically, traumatically, histologically, to understand, know, and multiply the unit to get anything you want. If you know what one unit is pathologically, then multiply it by the thousand to get a cancer, because it is but many units working abnormally.

"Special Innervations.—If we take as a foundation either the different sensations which are aroused in us by external provocations, these also differing in their nature and mode of action, or the motor phenomena which are most directly associated with these sensations, we may divide innervation into five great systematizations or principal categories, which will be: visual innervation; auditory innervation; tactile innervation; olfactory innervation; gustatory innervation."

We question how far Dr. Morat proposes to carry this question of sensory innervation. Is he to confine us purely to the functions of the educated part of man? I reason so, because he does not know of an involuntary feeling, hearing, or any character outside of what is taught as a part of the educated man. When he

speaks of sensory innervation, he is purely referring to the innervation or the senses of the educated half of man.

"Sensation is, in fact, the quality which is most characteristic of the nervous system; this latter being, of all the tissues, that which displays it in the highest degree, and which, on account of its complexity and its organization, confers on it its highest value."

Put your finger on a hot stove. Sensation is the recognition that you make upon that impression that that stove is hot. You want to know the process? Here is the definition:

"Sensation is, in fact, the quality which is most characteristic of *the nervous system*, this latter being, of all the tissues, that which displays it in the highest degree, and which, on account of its complexity and its organization, confers on it its highest value."

What is value? What does he mean when he talks of "the quality"? Does he mean good and bad, and, if so, how do we determine between? We say this is a valuable book, because it cost a thousand dollars, or another is cheap, because it cost one cent. There is something to compare relative values with. Here we have nothing. It is "the quality" which is most characteristic of "the nervous system." It doesn't tell anything. The thing we want we don't get.

"The first conception is a matter of ordinary knowledge. On the other hand, all sensation is intimately connected with motor action and which may affect areas of the nervous system at the same time, various and distant, but of which are immediately dependent on these sensations, and, as such, are characteristic of them."

We have no sensation but what we have motion. He leads to the completion of a cycle. He says, "On the other hand, all sensation is intimately connected with motor actions, which may affect areas of the nervous system at the same time various and distant." I get impressions from my feet all the time; I stand holding my equilibrium without thinking of it. We get impressions from two different places and they work intimately. Thus they are characteristic of each other. "Each sensory system is a sensitive-motor apparatus, which, in a certain measure, is not isolated from the others, but capable of being so isolated; that is to say, is complete in itself." Sight, hearing and feeling; tasting; smelling; they are all independent functions. One can be hypothetically independent of the other, yet logically they work together. You look at an apple on the tree. You take down the apple from the tree; you touch it; see its beautiful color; crack it open and hear it; your mouth waters; as you taste it you smell it. Thus you work all your senses as a combinatory factor of acting upon an apple. They theoretically work individually, but they work co-ordinately.

"Functional links exist between these partial systems, so as to insure the unity of the nervous system, and by it the unity of the living being." That is my contention. The atom makes the mole-

cule, the molecule the cell, the cell the membrane, the membrane the tissue. That sensory system is made up of individual functions which have to do with motor action.

"This second conception, which sanctions the intimate connections between sensation and motion, has begun to be generally adopted." Showing that it formerly was not, that it is not universal as yet. In other words, contradicting the principle of reflex action where motion does not depend upon sensation.

"Finally, sensation allows of an infinity of degrees and of gradations from those which have their fullest expansion *in the superior senses*, down to those quite obscure ones which interpret our most elementary requirements." We have the higher senses of the educated man down to the "quite obscure ones" which have to do with the making of a child in the uterus. Your body getting hungry and desiring a dinner, that is a low type. There is little, if any, consciousness in that, but where you see a picture and recognize a friend, that is the highest type of consciousness.

"In writing a complete history of the nervous system it becomes necessary to connect these subconscious (sometimes called unconscious) sensations with the motor acts related to them, to the distinct sensations of the superior senses, according to their functional affinities." In writing a complete history of the nervous system it would be improper, out of place or wrong to say that one could exist without another.

"This idea of an obscure consciousness governing all living actions, even those which appear quite mechanical and automatic, is the most modern of all those we have passed in review, and daily gains more adherents." Something behind a veil that you have to study, pierce, and penetrate to just see a hazy something. This obscure consciousness, you don't know whether to quite recognize it or not; whether it really is there or not. We think it is, but I am not certain. That obscure consciousness which has to do with the so-called mechanical *automatic functions*. The idea of seeing an intelligence in and behind running the so-called unconscious fellow.

"The nervous system is an assemblage of partial systems, each in an isolated manner presiding over some function of a determinate nature. None of these can replace any of the others, or be replaced by them."

The brain has atoms, and those take definite form and become molecules; molecules take definite form and become tissue cells of specific character, and tissue cells by proper deposition form themselves into lobules, into divisions, then into hemispheres, gyri, all those into convolutions, and thus the brain is built according to a system.

"None of these can replace any of the others or be replaced by them. This partition stands out clearly when the nervous system is considered at its periphery, either at the point of arrival or of departure of the stimuli by which it is traversed; it becomes more

and more obscure in proportion as we penetrate the depths of the system; of this statement the question of cerebral localizations is a proof."

"We shall then start from the extremities of the nerves, ascending nearer and nearer to the brain, tracing in this way, according to their kind, the great divisions and subdivisions of the nervous functions."

"The sensory field is divisible at the periphery into five parts, corresponding to the five senses. Each sense is adapted to a particular sort of stimulation, we may even say to an exciting medium of a special nature, to a specific excitement which cannot be replaced by that of another sense. Out of the infinitely varied movements by which it is surrounded, our organization has chosen five particular organs; these are the source of all our knowledge."

Equations

I sometimes wonder in the study of things material and immaterial how broad your viewpoint may be. Some people state in figures and those are liberal—to a certain extent. Others see material things at a distance. I further try to study your mind to see, in the presentation of an idea, how far you accept its detail. Supposing you had nothing and you were asked to build a world, and to do so you were asked to assume the duties of a God, what is the *first* thing you would do? Would you do what God has been supposed to have done or would you do as man would do? Is this world but a repetition or is it a world of wrong interpretations already existing? I sometimes wonder, in your most crude conceptions, whether you would have made a foundation to build your world upon. Unquestionably you say “yes,” because you have the completed object before you and you know it was based upon a foundation. While that conception is hazy, distant and of years ago, what do *you* do to understand that same supposition? Do you lay carefully, thoroly and accurately a foundation upon which you build your house? Yes, because a house is a thing material which you can cut, saw, bolt and nail, but what is even greater, grander and more material is, what kind of an underlying principle are you laying in your daily life, for your hourly work? What kind of a groundwork are you laying for the future? Are you working from a foundation or have you a crude wrong interpretation of conditions external? Are you assuming the world on its original “natural” basis or are you making an educated mental basis of your own? Without the *first* stone laid right your building is not a success; the first beams laid according to level and plane your home is not an architect’s masterpiece, or without every board being right the building is wrong, in other words, there should be *an ideal* for the architect, for every plasterer and that ideal is expressed according to the foundation.

You will grant this without question, but were you to build a man, how would you? Supposing you had never seen a man and yet were asked to build one, would you take the infinite care that our Innate Intelligence has done in making the skeleton, or would you have been satisfied to have thrown anything into its combination? Made up something that would have held together temporarily? Would you have been satisfied with anything short of an ideal? You would, because “human nature,” common conceptions, present-day education, and your ideas of today are monetarily and too easily satisfied.

If I can implant a spirit of unrest, of dissatisfaction, of making you pessimistic of your own ideas; being thoroly dissatisfied with an optimistic review that tomorrow you will replace the foundation with something better, then I will have accomplished something.

Many study the foundation of man and do not conceive how great it is. They hardly grasp the infinite end that was necessary to conceive it long before man was made. You see, before you, the crude structural skeleton work of a man—it is the basis of a massive steel and concrete building, the frame of everything which needs a foundation upon which to build. I say in this view you see the frames of other things, because other things are but duplicates of the skeleton of man. In this structural frame work you see every mechanical movement. Therefore, it is important for our lecture to reach the foundation of man first, and unless that has come to our ideal; and nothing short of it, then and not until are we ready to add the plaster—putting on filling-in material—muscle. In a steel and concrete building it is concrete, in a frame building it is plaster. Regardless of name the basis is the same. Once you strike a foundation, then fill in the frame work.

We are not satisfied to let this frame stay as it comes from a mold. A human is ushered into the world as a complete man and this is given the properties of moving from place to place which you do not get in modern steel skyscrapers or frame home dwellings, but you do get it in everything that walks on two or four legs. This requires the addition of something besides a frame and something to fill it. There is behind him thought—intellectual adaptation. He has the means of locomotion. This proves something besides matter, because it cannot be weighed, cut, dissected, or measured in quantities and qualities—only in the abstract. We are adding concrete to abstract, positive to negative. We consider that positive and negative, concrete and abstract are two sciences neither one of which can get along without the other. Without the negative the positive is dead. Without the abstract the concrete is dead. Man is a *living* thing. Therefore, we look to some part of man wherein the abstract can be taken in the rough and made into a possible utilizable material which can act through the concrete—the negative must be made possible to become a living part of the positive.

It has been one of the bugbears of medicine to not realize the very channels through which the negative unites with the positive or wherein the abstract goes hand in hand with the concrete. In other words, there have been two distinct therapeutical branches in all times. One leans entirely to the concrete, who neither sees, feels nor hears any abstract, then there is the branch who only sees, hears and thinks with an abstract and sees no concrete. The former is the medical man and the latter is the Christian Scientist who sees “no life, truth or intelligence in matter.” There is neither life, truth nor intelligence in matter but life, truth and intelligence work *through* matter. In deciphering our rudiments we cannot cut one from the other, but *put the two together*. This then is one of the pleasant missions of the P. S. C.

The Medical Brief, October, 1909, has the following:

“Our forefathers in medicine spoke a great deal about the vis medicatrix naturæ, then the term was allowed to sleep, and now

once more it seems it is to be awakened. In no field can it be appreciated so well as in that of abdominal surgery. Mr. Arthur E. Barder, in his address on surgery, delivered at the recent annual meeting of the British Medical Association, in speaking on this question, said that 'it is a power intangible, beneficent, all-pervading, claiming our faith, arousing our hopes, baffling our analysis hitherto beyond a certain point.'

"We have found out, in other words, that the *vis medicatrix naturæ* of serous membranes may be depended upon if the surgeon is not too meddlesome; this is especially true in regard to recuperation from insults to the great serous membrane lining the abdominal cavity. In dealing with infections in this locality the less the physician does and the more he trusts to the natural power of recuperation the better will it be for the patient."

Again, the nervous system, or the term I prefer—the *brain system*—implies that every nerve in the body is but an outgrowth, an expansion, from a brain cell. The same as—in the acorn is the oak tree. The oak tree can be no larger than what was contained in the acorn, so this body can be no larger, no greater than what was embryonically contained in that brain. The brain then is the center from which all things radiate. It is even the center—the hub—from which your physical being takes form. Therefore, I prefer calling everything that is masquerading under the name of "the nervous system" as "the *brain system*," because the "*system*" that is outside of the brain is but a *part* of a "*system*," and was at one time a portion and is the outgrowth of the brain. I like "the *brain system*," because it is truthful, but how few of these truthful views are in medical books. Every fiber, running up, unites into one central cavity. Fibers that started in the toe and in some part of the brain forming an integral part thereof. The *continuity* of a nerve fiber is an extension from muscular cell in the toe to a brain cell in the brain, and midway between one and the other there *would not be* a single disconnection or breakage in the path of that nerve.

If that statement be correct, it overthrows all conceptions known and accepted of every previous idea in the world of therapeutics. The only judge that can justly or unjustly try the merits of a theory is results. Could you draw a mental picture, see myriads of tissue cells and then see from each one continuous minute thread starting from the cell itself, *all* those strands gathering or converging towards *one* common meeting place continuing their identity as individual threads, the constant addition of which makes a larger cable, cable after cable making it still larger, the largest part of that cable would be just external to the brain or skull. Then again comes our picture of these multitudinous little threads, each having its home to go to, its stall where it belongs, its resting place. Could you again carry your picture farther and see that *every* brain cell gives forth another fiber, many of which, together, *go out* as a bundle, and once the cable gets outside of the brain it divides into multitudinous fibres, one to go to each tissue

cell until every cell had its fiber—then each cell would have two fibers, one going *from the tissue* to the brain and the other from the *brain* cell to the tissue cell.

Over these two fiber paths go up messages and down come responses. The tissue cell in a stomach could say, "I want bread," the message flashes to the mind, and the brain cell would reply: "Bread you shall have," and down comes the message which would deliver bread to the cell asking for it. Carry that picture of one tissue cell making its circuit for an askance and delivery and then broaden out, lay your foundation carefully in breadth, scope and magnitude, see every successive tissue in that body in direct communication with your entire brain without a single breakage, then you can see what it means to have a live, acting, Intellectual Adaptive mass of matter. That then is, briefly speaking, my picture of man. I can't conceive how it is possible for the intellectual adaptations between viscera; how it can be thought that brain can act "in harmony with a stomach" without there must be one general commanding unity between two or more segregated members of that household. Man has 4 hearts, 2 brains, 1 stomach, 2 lungs, 1 spleen, 5 livers, 2 kidneys, 1 bowel, and 2 legs. As you see the minor divisions, the connections of each tissue cell in the viscera with each tissue cell in the brain and carry that picture plus the addition of the circulation of currents, you can't help but say one lobe is the heart lobe of the brain, another lobe is the "lung brain," and still other lobes would be "spleen brain," "kidney brain," "intestinal brain," "abdominal brain," "uterine brain," etc. This complete brain represents a mass of viscera and structure divisible according to the portion of the body to which it sends controlling currents.

Speaking of systems—see this telephone. When I want to reach communication with my studio, I would press one button and call it "the studio button." *This* button connects me with my private office, another goes to the general office, etc. Why? Because when I press that button it connects currents, puts me in communication, in contact, with the room named by threads which carry commands and demands, even though I be at a distance.

The spinal cable is composed of efferent and afferent fibers, "positive and negative wires." These continuous fibers go into and come out of the brain and leave that massive home of the mind through the foramen magnum. It is a large hole entirely surrounded by *solid* bone and through that passes millions of messages every hour, as many going in as come out. What I imply is this, if the spinal cord was cut at that place and could you put a megaphone on the end of every wire going in and coming out and could you listen to every demand and command from the body above and below, on their way to or from the radiating center of man you would hear millions of messages every hour. Do you see how important the brain is as a center for materialities and immaterialities?

My arm is flat to my side—I want to raise it. I think, “Raise the arm.” I thought in *my mind*—in my brain—and the arm came up—never asking here the question how did the thought in the brain raise the arm? It takes force to raise muscle, to oppose gravitation. *How* did thought move muscle? Only by a process of transmission from one place to the other. That is a procedure you see, yet it is necessary to analyze to exhibit the conclusion.

I cannot help but sarcastically and ironically ridicule the sympathetic nervous system and its consequent reflex action. No one dared question this monumental ignorant idea. In spite of the opposition, no one can offer a logical finality to confirm that man is run by a reflex action passing in and out and through a sympathetic nervous system.

If supposition is true, every thought must go to the brain, and every bit of power, that moves muscle, must come from the brain, then how, logically, conclude that crossing places of many fibers are ending places, a general dumping ground where fibres and impulses start and end? If a command going to a ganglion could, by some peculiar method, be changed to come back, in the form of force, to move muscle, we conclude that in that particular spot resides a mentality which discriminates between good and bad, hot and cold, pleasant and unpleasant, and if it did not judge for or against man it would be nothing. If we accept the common ground of medical men that a distinction is being made in that sympathetic ganglion, then man has 129 independent brains, one having no connection with another. This is not so, and you know it. There is a distinction in medical annals between common sense and science; they rely on the latter and I on the former. I found in analyzing man that simple bases are common horse sense, the sciences which would not stand horse sense application were wrong. Medicine won't stand the application, therefore, if it won't stand a *little* investigating, *more* scrutiny was worse and it is not for me to belittle medical theories. They do that themselves.

In this wax model notice the pairing of nerves between each two vertebræ, that spinal cord in one mass, then notice these nerves serially paired off, one to each side and two to each vertebra at higher and lower levels. It was here, applying common sense, I found man was built like you women make a layer cake. He was made of sections, one layer upon another. Each had its frosting between and so has man. I called these divisions “zones,” taking the idea from your map, which has a torrid, temperate and frigid zone. The sum total of zones equals “the meric system.” I named each different anatomical structure separately, so intellectually, we could think and talk of one mere and not another. In that sense we have “osseomere” when we speak of bones in a certain zone. Muscles is the *myomere*. I know the brain was in communication with muscles, bones and cartilages through nerves, so I called the nerves in that district a neuromere—the first (“heuro-mere”) beginning with the Atlas. The 22d neuromere transmits

mental impulses to the 22d myomere, the 22d neuromere connects the brain with the 22d osseomere. You can divide man up and still speak intelligently of what and in what sense you mean it.

In building my picture of man, where common sense could reason with him, I saw the importance of the *continuity* of fibers from the outside to the inside and vice versa. My brain was the centermost—the innermost—of man, everything vital, important, grand, good, uplifting and harmonious came *from* the inside. If man was sick it was inharmony, if he wished harmony he had to go inside and bring it out. I could not see how man, on the outside, could do something to the outside and get the outside normal without going inside for it.

Nerves are soft structures, the softest tissue in the body. Bones, the hardest. The irregularly shaped bones (vertebræ) are the hardest of all. What would a vertebral pressure upon a nerve do to its capacity of transmission? Would a pincher pressure upon a hose shut off water? Pressure, chiropractically speaking, is not pressure until you form a constriction to every avenue of escape. Granting this a true circle, suppose we were to introduce pressure (as commonly understood) upon the left or right side, what would it do? It would move the circle to the opposite side. Introduce pressure as commonly understood, upon the left and it would have moved the circle to the right. It does not become "pressure" until complete restriction has been found wherein the circle or any portion thereof cannot escape. So long as you but alter shape or form you have not injured the *carrying capacity*, but decrease the lumen and size and change shape and form then you have damage. That is the sense in which Chiropractors use the term pressure.

Every neuromeric opening was made by two movable sections, one below and the other above. Supposing the upper portion should change position without spreading what would occur to the structure that filled the opening of both sections? As each solid bone abnormally changed its position they produced a *pressure* (constriction) on and around that softest structure. Materially the form digressed from the possibility of keeping our tissue cells in constant and steady communication with the master mind in the brain. I had to go to the science of electricity.

If you, as a Chiropractor, want to spend time studying outside your profession whereby you can benefit your profession by so doing, don't study medicine or osteopathy. *Study* electricity; you have truth and knowledge. I can't say as much for "Therapeutical sciences." Don't consider man chemically or as a product of reflex action and sympathy. Be practical, you have no time to waste. The secret of my success, in being able, perhaps, to evolve new ideas, as regards man, are made from the human application of what little I know of electricity. The problems confronting me today are those that every electrician is observing. I say, modestly, I have solved some of his problems by studying man and applying my results to electricity. Were I capable of meeting Thomas A. Edison I would consider it more a compliment to our profession

than to meet "the best surgeons and physicians," because he would teach us much.

A dynamo is but a mass of matter, but when that dynamo was in motion it made a product—electricity. Matter plus force made motion and motion plus matter made electricity. Matter without motion was without force. Here were three men—one alive, one dead and a man sick. What has the *live* man that a *dead* man has not? "One has nature and mind" and the other has not, but what was *life, matter, nature and mind*? I found no answer. This man is "*alive*" now, but in five minutes he may be "*dead*." What was there alive but not there when dead? When matter was in motion we had force and when not in motion we had no force. Could I make any other conclusion than that the sick man was just that much dead or absent that amount of life?

This man is fifty per cent paralyzed who was half dead and half alive, so, coming down to horse sense, every disease man has, call it what you may, tuberculosis, cancer, eczema, itch or anything else—they are all classified, in the last analysis, as partial death or partial absence of the connection between mind and matter—current and tissues, negative plus abstract. Complexity adds nothing. Simplicity does. Complexity incites confusion. Simplicity aids understanding. Complexity mystifies but simplicity promotes growth. Complexity stifles progress. Simplicity is liberty.

I applied the principle of electricity to this bit of anatomy upon the same ground that an electrician would have done. The brain was the dynamo, the spinal cord the cable and nerves were wires. Over here was a heart. At times that heart was partially without light (life.) It was in partial darkness (disease). Why were those lights dim? *Because they had no current.*

What was there for me to do? Light a candle, go into the recesses of the heart and light them temporarily? No. I could not stay there all the time. There would be times when I would leave and if the continued light depended upon me and the presence of a burning candle, then sometime the room would be dark again. Go to the place wherein the current was being interfered with. I found it at the subluxation of a vertebra, which was making that opening smaller, a decrease in the size of that window which was producing a constriction upon a soft wire and that constriction was impeding the transmission of mental impulses, from my brain (dynamo) to the tissue cell (rooms) of my heart, but I adjusted that subluxation. I made right the button and in turning that on, light (life) came into every room (cell) of that heart. In that sense I speak of "Turning on the stomach button. We need more light. Turn on more current going into the basement (bowels). Turn on more of the necessary (function) in the kidneys. They are trying to act and can't." Do you see what I mean? I likened every organ and viscus unto a room and it was necessary that current get through from the place where it was made to the place where it needed expression.

The electrician regards the evolution of a dynamo as *generating* electricity. He considers *transmission* from the place where it is generally down to the motor where *expression* takes place. How could I then consider man other than *creation, transmission* and *expression*? Negative current went back but only one phase was observed. I saw three. Where were the *two* added. Intelligence was now a factor to every action taking place in my most complete intellectual man. Every complex situation presented *intelligence* plus matter. If I had only ignorant force and matter, then every problem would not have been a problem, because intelligence had not been considered necessary to the giving life to a tissue cell (lighting of a room). Those problems appearing complex at first became simple, and it was the multiplicities of man that elucidated some of the subservient puzzlers in electricity.

The various phases of sublaxations, their positions, the points of pressure, etc., were considered each in its respective turn, place, and degree. The study of qualities of currents was not important. I thought "phenomena in pathology" would reduce the attribute to quality, but it became a question of *quantity* of current instead.

As we proceeded then man was more than an electrical apparatus and we introduced more than one additional problem. The idea was advanced as to whether electricity went through or *over* a wire, and that problem exists with nerves as to whether this mental current passes through or over a nerve. I have likened man to his being electrical and I must disillusion your mind that any man is anything electrical, for that peculiar kind of force in man is not electricity. Electricity would as soon kill as give life, as soon murder as manufacture heat or hatch eggs, as soon destroy life as to promote it. Electricity then is not a discriminator; shows no adaptability or any attributes of qualifications between good and bad. It could not obviate an obstacle or circumvent something in its way. Living and thinking currenting mental impulses did all of these and then some. Naturally then we are dealing with something greater in man than electricity.

This necessitated the problem of elucidating what "life" was and is—an answer that you can only get in the study of the Cycles. Every consideration thought of when there is pressure upon nerves must reach a conclusion. *Why* do you give an adjustment? "To adjust the vertebra." *Why* do you "adjust a vertebra?" "To release pressure upon nerves." *Why* do you "release pressure upon nerves?" "To restore nerve force, reflex action; or sympathy between the stomach and the heart or to get a brain connection with the tissue cells," and so would go the various erroneous answers. Your *first* answer should have been when asked, *Why* do you adjust a vertebra. "To permit reconstruction of the abnormal cycles to normal ones." You eventually must reach that conclusion if you want to go to the end of present day logic. Philosophy is based on common sense answers to the question "why," and philosophy is but a completeness of answers to that why and combines them, until they make a chain—a philosophy.

As we proceed to a typical case of a right subluxation producing pressure upon right nerves, it carries more to my mind than a few bones or nerves. These nerves are now smaller than they were previously. I can see where those nerves end, the tissues depleted and way back behind a dynamo making an unlimited supply of power, and midway on the path of this nerve I see a rheostat cutting off the transmission of current from the unlimited storehouse of the dynamo to the limited expression in the motor, and the cause of this is the rheostat.

Then I see the physician in all his grandness and pomp, with his mass of intelligence, four years' careful training in its stupendousness or ignorance. I see him spending hour after hour learning how to and trying to hear how dark (how much disease) the room (organ) has at the end of the wires (nerves), and when he *thinks* he hears, he says, "You have functional disease of the heart. The mitral valve isn't working fast enough," which is equivalent to "although your room is lit by a center light yet the S. W. corner of the North East division of the Western half of your room is darker than the balance." He concludes by guessing, on the outside of the chest wall, how dark this room is when he can't see into it. Conclusion? His work is hypothetical, and if his basis is presumptuous, can his treatment be better? Hardly. No physician *on the outside* can tell *how dark* the room is inside any better than I. The physician is standing in his own light. He reminds me of a W. U. messenger boy. We call him "Sleepy John," and he *is* sleepy. A street car stopped in front of this school. It would not go. The motorman took up the car floor, he fussed, stewed, cussed and swore, but he could not find anything wrong. He telephoned the car station and asked for "Henry." "Henry" was *the expert* electrician. He has taken a *four years' course* in Electrical Engineering and is a graduate of electricity. He is *licensed* to practice as an electrician in Iowa. And you think he will find something that you have not? "*Of course—he is the expert.*" Henry, instead of going inside and looking down, "the expert" got underneath and looked up, but after working half an hour he could not find anything wrong. While waiting for the wrecker to drag them away the motorman, conductor and "expert" Henry were standing on the outside cussing a blue streak when along came "Sleepy John." "Say, Henry, what's the matter with the car?" "Can't get it to running." "Why don't you turn on the controller?" "The motorman had done that, but the car isn't running. Understand?" With his mouth half shut, looking over, *above* and below the car, he said, "Henry, do you want to know what's wrong with your car?" "Yes." "*Your trolley is off.*" The trolley *was* off of the overhead wire, and when put on, so *the current* could get from the overhead wire to the motor, in other words, when current could be circulated *through* the car, it went down the hill a whizzing. They didn't even turn back and thank "Sleepy John." He walked down the hill, alone, reflecting "What is the use—does it pay?"

This is a practical illustration of what is occurring millions of times every day. Thousands of physicians have their trolleys off and they haven't enough current going through their brains to know it. If we could get hold of that overhead trolley we could show them they needed more current so they could think and act properly. No physician looking *at* the inside of a man could see what was wrong. It took the Sleepy John, the fool that don't know any better or couldn't help using common sense, who stood to one side, to get a perspective and see *where* the trolley was off. In that sense Sleepy John and I are the same. I see the keynote to the therapeutical situation which even the experts with all their wisdom could not fathom.

The physician holds the same relationship with man. He does not know where the current is cut off, and even though you tell him he won't care, because "the subject changes in every case." There is a broad application in this idea of the normal current man. The man expressing *normal* currents is the up-to-the-minute man. He is the man of perfection; of spirit; of emotion; the one getting ahead. He is the man who thinks upon his own initiative. He is the man of progress and invention. He it is who works out the new ideas. I do not care how much abnormal a man's brain may be, give it the proper current and that man's product will be an addition to the world's progress.

Realizing that every person is more or less shy of normal current, can't you see how much good the Chiropractor can do when he can permit more current in every brain, left lung, turn on the light to his stomach or light up his basement? Can't you see that we have a mission in this world? Supposing we could look ahead ten years, when, hypothetically, everybody has had adjustments for two solid years. Can't you see a *better* world, where man things better thoughts, acts better acts, and man *is* a better man, and as man as a unit improved then the world as an aggregation of units has progressed to a better age.

"How do we know these threads are continuous to the brain? Have you ever dissected or vivisected living creatures? Have you reached conclusions through experimental sciences?" No. Then how do you reach these revolutionary theories? I consider the intelligence of my patient as something to be dealt with. He comes to me to give him something and I refuse. Everything he gets from me he gives to himself. I at no time add anything to and I will never take anything from his body. The Chiropractors are the biggest thieves today. We are the largest robbers of people's aches and pains.

How do we reach conclusions? The patient and Chiropractor work together. The patient and I get together and trace the paths of nerves involved. I want to know where they go to as much as the electrician who listens to my complaint of an absence of a light in one particular globe. He wants to and has a right to know where the wires come and go to. It is my duty to tell him, and if I do not know it is *his* duty to find out. What I pay for is

results. This patient comes with a trouble and if he does not know where these nerves come from and go to, it is *my* duty to find out. I cannot kill and then dissect or partially kill and then vivisect—give them life again to find out why they are not well, but take him *as he is*, start at the place where the dynamo is and trace on that living, feeling, thinking, discriminating body and have *him tell me* whether I have the right fiber or not.

He will know whether I have *the right fiber* or not by the realization that every globe that is not carrying its full quota of current will be abnormal in sensitiveness, consequently, as soon as I touch the right nerve we will both know whether it is normal or not by the fact that if it is not carrying enough current it will be super-sensitive, according to the impressions interpreted by the mind within the brain, so by a process covering a period of years we have nerve tracing; tracing nerves upon the *living* body.

In that way "theories" were verified, and transformed to facts. We have dared to question neurology as taught in medical schools. We are administering results that no school of medicine can duplicate. And surely *results* count.

Even though we have built our structure in every phase, learned all about the area in which nerves pass, how they approach and how they do or do not carry a current, yet in spite of these facts there is still *the problems of cause and correction of that cause*, and even though our theory was all correct as regards the philosophical side—we had yet to prove it. We had to study the law of cause and effect. Any individual could tell effects. Effects the world did know in greater and greater abundance. We wanted the *one law* in its relationship with each part. Intelligence was the cause, symptoms were the effects, and if Intelligence worked matter there would be nothing wrong. It was where Intelligence was not working matter that we had the cause of all troubles, so we made a revolutionary statement when we said that *cause was not in material things*. The subluxation was not the cause of disease. *Disease*, as a word or thought, is abstract expressing an abstract condition. We could not have a concrete cause for an abstract state and I proved it by taking our live and dead man. Would there be a disease or diseases in this *dead man* and no disease exists. But the subluxation upon *the live man* did make disease so the requisite for disease was the *absence of life*, and the *cause of disease* was according to how much life, intelligence or mental impulses were not able to reach their peripheries. *The cause of disease was the absence of current*—the cause of "the absence of current" was the subluxation, and the cause of the subluxation was the concussion of forces. The same cause would answer why those globes are not burning electricity. In the absence of current the light is dead. Give it current and you have light, partial current partial light, complete current complete light. In the earlier years of Chiropractic and until two years ago we placed stress upon the thought that subluxation was the cause of disease. Knowledge today says a subluxation was never *the* cause of a disease. Some-

thing even behind that was necessary. We admit that sublaxations exist but they are the physical or material *representatives* of the *immaterial* cause. The sublaxation represents *where* the cause is. Therefore they *represent* a cause because the word *cause* in itself cannot be an abstract term without a concrete application. Cause and effect are two words that go together. You always have the two together, abstract and concrete. In realizing that sublaxation of vertebræ do exist and were in all reality existing at the place where the abstract cause of disease was we turned our attention to how to adjust the sublaxation. It may be that according to my last analysis we are treating effects.

How to replace the sublaxation of vertebræ became paramount. We made adjusting vertebræ an art and the doing of that work made artists of the men who persisted in its accuracy. To-day we take pride in the fact that we graduate "artists," because he weighs carefully every detail.

What constitutes an artist? There is the house painter, the paint slasher, and the man who goes to the country, sees a landscape view, the brook, the levees in their various shades of brown, he hears the water dribble over stones, and a bird chirping. He comes home, miles from that landscape; carries with him every individualistic detail of color, size and form, and one by one puts them on canvas. He knows that "success is systematized detail," and he works for that end. Not a slash today and another tomorrow and then sell it for fifty cents. He is putting in week after week, month after month, and year after year of diligent *self* training. You study that picture and see more in it tomorrow than today. The view gets larger—grander. You see detail in it when you know *how* to study detail. The same can be said for vertebral adjusting to anyone who knows adjusting as an art. There are hundreds of details that have to be weighed simultaneously when that "twist of the wrist" is given, so don't think that adjusting is putting your hands on a back and giving them a thump.

I wonder where *you* will be placed when the final roundup comes of artists. Don't think you can be an artist by *wishing to be*. Artists are not made by dreaming of cobwebs on walls. The artist is everlastingly in motion—a little today and a little tomorrow even though it is a detail.

We are trying to make artists of men, well knowing that it takes accuracy to make artists; that results are not dependent upon slipshod methods, but upon careful palpation and the reversal of the concussion forces that made the sublaxation possible. After all we are never in a hurry to go home until *we have made in our minds a picture* of what has been said. We are all too prone to listen to words without letting it sink into our minds; without carrying from a lecture a series of pictures from which we learn our lesson.

There is food for thought in some of the ideas given, but they are not "food for thought" unless those words have made upon your mental canvas a picture which you can read after you have

left this hall, months from now when in your homes, your cities, your offices, when you stand over your patient; when your arms are in motion, *then* is when you need to see the acting moving picture made by words tonight. When once you possess my idealized picture, you will have accomplished one point ahead tomorrow that you didn't have today.

Before proceeding with the equation system which we are about to introduce, it will be necessary for us to get a basis on which to work. An equation is an equivalent division as regards degree, quantity, depth, area, speed and any other attribute which may apply to functions, whether combined or otherwise, to the end of forming or assisting to form a new idea, as regards a new combination that has never existed before. Every disease may be resolved into an equation of causes. No two diseases in any two people are alike, consequently we shall take the sum total and analytically reduce it to its component parts as regards the general bearing, rather than the specific application. Therefore the condition necessary to produce excessive heat would be one function, and one only, and it is immaterial whether there is one degree of excessive heat or 99 degrees—excessive heat is excessive heat, regardless of quantity, providing there is heat just slightly in excess of normal.

Bear this in mind then; in building our system of equations we shall deal with each disease broadly as it may appear through many individuals. Equations, then, will be a series of comparisons, to find wherein one disease differs from another. In handling this subject, then, I propose to carry it through on the equation basis: that is, take the effects, symptoms or disease through a qualitative, comparative analysis; thus, what the disease is, or is not, and why it could not be otherwise than it is. We will thus discover the close relationship of many diseases to one another and how difficult it is to really differentiate between these closely resembling diseases. For instance, the shades and tints that we might get in a blending of one into the other, gradually, slowly and insidiously. For instance, small-pox is Variola only in a severer degree; chicken-pox is neither, being the grade between. There the equations for these three diseases would be the same, but the degree of pressure upon the nerves involved would be different. We have a combination of four functions involved. Say Variola would be 33 per cent of these four functions involved, chicken-pox 66 per cent, and small-pox 100 per cent. This is what we mean by shading or blending or fluctuating.

For the purpose of brevity we are giving letters in enumerating the various functions and the specific localities in the spine by figures; thus when I is referred to, it means a subluxation at Atlas. The amount of pressure that exists in each and every disease must be considered, although we don't know and never will know just how much exists in each, so when we sum up totals and say approximately 10 or 15 per cent, we do so vaguely and relatively, because we have no exact means of knowing the percentage

of currents traveling in a normal person, to say nothing of abnormal.

We do know, though, as we observe functions, that certain functions are involved; that is, we know this comparatively and relatively as we analyze symptoms, and even then we are often mistaken, and we must also observe whether the function is lacking or excessive. We know in paralysis that there is a lack of action, and we know that in so-called nervousness there is an excessive action. These are purely relative terms to express our thoughts in regard to relative conditions. The degree of pressure will be considered from a numerical standpoint, with the figures in the brackets and the per cent after. The amount of function will be indicated by the (+) or the (—) sign. In our basis, then, we will consider the following as conclusive:

M equals Motor Function.
 T equals Secretory.
 E equals Excretory.
 R equals Reparatory.
 Y equals Reproduction.
 N equals Nutrition.
 S equals Sensory.
 X equals Expansion.
 C equals Calorific.

These nine primary functions will be considered throughout the system of equations and excess or lack of would be respectively:

M +

M — And this applies to all of the functions.

Or if we wished to build up a comparative condition, it would be as follows:

+ M—T.

+ E—R.

— P + N, according to which seems more important.

We are dealing with currents and shall deal with them in cyclic form:

O = Mental Impulse.

P = Power.

A = Area.

D = Depth.

F = Force.

Or we would say in differentiating between excess and lack of:

+ P = Excess of power.

+ F = Excessive force.

+ A = Excessive area.

+ D = Excessive depth.

— P = Lack of power.

— F = Lack of force.

— A = Lack of area.

— D = Lack of depth.

While at first these terms may appear somewhat complex and mystifying, when you once get into it, I think it will simplify the whole thing—it is always necessary to lay a basis before we can proceed. In considerations of disease where it is located is an important feature, diagnostically, as it is only an anatomical feature, also how many tissues are involved, how deep the area—not that these have any bearing on the adjustment that will finally be given, nor does it show us how to give it any better.

We shall henceforth refer to the location of a subluxation in the sense that this is where the pressure upon nerves exists; that is, where we are interfering with the cyclic currents sufficient to interfere with any one or more of the functions to the extent of any degree from 1 to 100 per cent. The amount of power or force expressed depends upon how great this pressure is.

The depth or area of tissue involved depends upon how soon or how many of the fibers spread over the territory; whether they penetrate deeply or superficially; whether specifically or broadly, or whether they penetrate superficially and broadly, or deeply and broadly, etc.

I shall aim to disqualify every possible peculiar showing of effects after it has been produced and introduced.

As spoken of before, we shall number our localities as follows:

Atlas Place,	No. 1	C. P.,	No. 10
Axis P.,	No. 2	S. P.,	No. 11
U. C. P.,	No. 3	Spl., P.,	No. 12
M. C. P.,	No. 4	K. P.,	No. 13
L. C. P.,	No. 5	U. P. P.,	No. 14
V. P.,	No. 6	P. P.,	No. 15
A. P.,	No. 7	L. P. P.,	No. 16
L. H. P.,	No. 8	Sa. P.,	No. 17
Li. P.,	No. 9	Cc. P.,	No. 18

Broadly speaking, we shall carry out our equations in all kinds of diseases wherein there is a depth of tissue, regardless of whether much or little; whether the A. or D. is great or small. In all such cases there is a commonly accepted idea that poisons must have been introduced into the body before poison could have been there. For instance, in syphilis or gonorrhœa. There is a prevalent idea that for a male to have either of these diseases we must come in contact with the virus of a person of opposite sex. This reason is illogical and will not stand analysis. With tuberculosis and kindred diseases there is a prevalent idea today regarding bacterial toxins and microbe poisons; in fact, we are supposed to have many fevers induced by external agents.

This hypothesis is all wrong; every disease found in man has its cause within him; no effect exists within an object but what the cause is also found within. Assuming now that we have a normal man, a man having 100 per cent of cyclic currents going through one to eighteen fibers on both right and left sides; then an interference will exist in one or more than one of the nine primary func-

tions, either in excess or lack of. We then recognize the same basis that physicians do that it does not affect some because they are immune from it, or some people ward the things off because they are healthier than others—so it is that they express their ideas. It is for us to explain comprehensively what they do not know, all to the definite end that where a person is normal there will be no affecting poisons; that is, when he is normal inside there is no cause inside. A normal man receives a concussion of forces, perhaps induced by poison first (which is daily being done), and as a result we have a vertebral subluxation, hence pressure upon nerves of some intervertebral foramen. If the combination be just right we will have varying degrees of depositions of degeneration as a result.

Just a short time ago I mentioned that all of our considerations would be based on a ratio of 1 to 100 per cent. Anything short of 100 per cent is a form of paralysis. Now, then, you will ask how can we interfere with 100 per cent and get an excessive action? We look at an electric light and we say it burns a certain amount of electricity per a stated amount of time. If these lights are burning to their fullest then we have 100 per cent of current; if we introduce a rheostat along some portion of the wire leading to the lamp and we thereby intensify or concentrate, per the same space of time, or per a shorter space of time, the same amount of electricity, we are burning out the lamp much quicker. For instance, 100 per cent of current per minute of time would be a unit of electric light; by introducing a rheostat we utilize 100 per cent of current for each five minutes that ordinarily would be used as 100 per cent of current per one minute to be used in ten minutes. We are taking twice as much current and utilizing it in half as much time. That's why in every disease where there is an excess of function that life is shorter than the ordinary. Take a given case of two individuals; one has had typhoid fever and the other has not; taking it for granted that the term of their lives would be 100 years, if normal. I will show you that the man with the typhoid fever will die at the age of ninety-five, while the other will live to 100. This is purely a hypothetical illustration, the object of which is to show that it is an intensifier of currents—a greater amount of current per a shorter space of time. Light pressure intensifies and heavy pressure paralyzes. This is a well known fact in electrotherapy.

Concussion of forces equals a subluxation.

Subluxation equals pressure upon nerves.

Pressure upon nerves interferes with currents.

The combination, then, for degeneration of tissue at any time, anywhere, would be as follows:

+ C)

— N) = death of tissue or death to its secretions.

— R)

An absence of cyclic currents of nutrition and of reparation would be death of tissues. Death of tissue takes place in any one of these prominent diseases, such as gonorrhœa, caries necrotia, tuber-

culosis, acne, boils, cancers, scarlet rash, degeneration or decomposition of any kind, small-pox, scrofula, etc., etc. All of these equal different and varying degrees of the same fundamental equation; differentiation is brought about by difference in location; difference in degree of pressure; difference in the consideration of the area where located and the depth of that area. Suppose we have preceding this the thought "Local Subluxations"; that is, equivalent to local effects of any of the considerations named, and then some. Supposing we have two subluxations, which means two local conditions based on the same basis in different parts of the body, perhaps, and all different standards. You will call a pimple, if on the face or a boil on the back, because the area and depth and the degree of pressure are different, if the pressure becomes greater you have a carbuncle and then a cancer—the physical basis remains the same, your equation being as illustrated. With the above condition of causes existing what we would have is a pathological result and a virus sufficient to be called a poison; that is it would be so decomposed as to be a poison to all living tissue. Knowing that this is true it is a necessity for us to bear in mind when we are considering symptoms of decomposition, wherein structure is decomposed, regardless of whether we are considering syphilis, gonorrhœa, scrofula or catarrh; regardless of where located; of what size or what degree; until the product of your equation, anywhere located, in any degree, would be a poison to other living tissue. Knowing that this is true, it is not even necessary to argue that poisons must be introduced to make poisons greater than they are—an internal cause exists which is sufficient to make more poisons.

Resuming the subject of equations, we will start on page 14 of Vol. IV, under the head of General Diseases with ASBCESS.

Abscess—A combination of the following functions: Nutritive (lack of), calorific (excess of), reparative (lack of). Serous circulation is frequently involved. The same combination exists for cancers and pimples, only in larger or less degrees.

We reach the conclusion that abscesses could be induced without poison being introduced to make it. We also reach the conclusion that gonorrhœa and syphilis could be produced in any portion of the body without being introduced from without. Another proof of this is the fact of the lesions of syphilis are manifested in every portion of the body.

Violent concussions of forces equal severe subluxations which involve the same combinations of functions as we had before but in different degrees, with different terminations of the fibres involved or impinged, hence the course of decomposition or states of poisons at their periphery would be different. With poisons already existing in the body, produced by previous subluxations, perhaps even though in a milder form, with causes already present, let us assume that more poisons are introduced into the system in some way—for instance, such as diphtheritic serum or vaccine virus, regardless of whether in large or small doses, so that the already weakened tissues (because of the previous poison) are

unable to accomplish the task set before them, so because of the present emergency the subluxation is made greater and greater degrees of pressure exist now ; with the poisons now existing as the results of subluxations, the idea would be illustrated as follows :

The tissue cell receiving 100 per cent of calorific impulses is normal, also 100 per cent of reparative and nutritive impulses is normal, but if there is an excess of calorific impulses, excessive heat, with nutrition minus or lacking, as well as reparation, then we have a condition of decomposition or degeneration—call it cancer, boil, pimple, or what you will.

It is not necessary that poison at any time be taken into the body to have poison there—the cause and effect are both within, and when you analyze back to the subluxation shutting off the mental currents or impulses, and adjust that, you have restored the condition to normal.

From our standpoint it is the rankest kind of folly for a physician to prescribe vaccine virus or diphtheritic serum to a person suffering from the same kind of poison—it was an excrement from the body which produced it ; how can it possibly do an already weakened structure any possible good ? These are pertinent questions.

In each illustration that we might wish to carry out of these equations, pus is being made artificially through disease ; pathologically through the interruption of currents, although in every case it will vary—no two cases of any disease mentionable are alike. Look at this from any standpoint ; go beyond educated man, if you will, and you will find that Innate Intelligence is aware of the pus being there and she is in each and every case resisting it with as much force as she can muster through the already depleted ranks of tissue cells. She is to the army of cells as a bugle call is to the tired soldiers—spurring them on. Innate is doing her level best all the time with this army of depleted cells. **LACK OF CURRENT CAUSES THE PUS.** What difference does it make, after all has been said and done, whether the lack of current was in this body or that of someone else ? The fundamental in each person is the same ; the principles are alike. What can occur when more pus is introduced ? Do you make the original condition worse ? If so, how ?

We are still talking about equations. In our last lecture we demonstrated that it is not necessary to introduce poison from the outside in order to have poison existing or pus formed inside.

I have no doubt but what it is possible to have a pressure upon nerves existing which is so slight that its effects are not observed outwardly. Innate is aware of them but the educated may not be. For instance, a subluxation of the vertebræ may exist and we know that there are pressures upon nerves ; that there is a shutting off of currents but as yet no noticeable change has taken place in the physical body. Say that yesterday we felt just a slight tenderness or soreness in the neck. We knew there was a subluxation and we knew that unless it was fixed we would later have more serious

trouble, but we didn't think to connect that with what would come tomorrow. This morning we got up and we have a discharge from the nose—commonly called a cold. Now, we argue, this mucus coming from the nose is a poison. Now, where was I yesterday or last night where some poison of this kind was injected into the nostrils? You call that the height of ridiculousness, and it is. We know readily enough the cause was there yesterday and it is there today; the effects are greater today than they were yesterday from the same cause.

We know further that adjustment at fourth cervical entirely stops the running of the nose, yet because popular opinion and science has said and written books about the same kind of conditions in other portions of the body, because they say that so and so is the cause, you humbly believe it.

Suppose we grant that there has been an injection of pus; that the person was in a cramped position last evening shoveling coal into the furnace, or twisted his spinal column in some way—in some way he has caused a subluxation some place between the Atlas and the Coccyx. Then we have added additional resistance. Blood flows by natural intellectual adaptation and we may get the following equation:

Excessive heat,	10 per cent —
Nutrition,	10 per cent —
Reparation,	10 per cent —

Now we have interfered with all three primary functions, consequently the effect is more noticeable this morning than yesterday. Now ask yourself the question, did the pus that was injected make the combination different? Did the traumatism, or what the traumatism induced, make the combination change or increase? What the concussion of forces received changes into is what makes the subluxation worse or better. In this connection I would say that in one way the means of inducing concussion of forces is important. It makes no difference which way it was or where it was situated in location of effects—the principle is the same. Let us apply catarrh of the nose as an illustration. We have inflammation of the mucous membrane and poison is the result; degree of pressure cannot be much greater than it is. In this analogy we have the proper application of the superficial ideas. Although not readily recognized as catarrh, I consider that such diseases as gonorrhœa and syphilis are the same, only deeper seated in origin and localized in the genital organs most frequently, although not necessarily confined there. I consider those diseases synonymous with the exception of the question of depth of area affected.

The equations of typhoid fever have some variations from the ordinary form of decomposition and I submit the following:

Typhoid fever is a name often misquoted, misinterpreted and misanalyzed. Fever is one thing and the combination of additional causes (with their effects) necessary to make that fever a "typhoid" one are many, and no two "authorities" exactly agree as to what those combinations are. What they may be is stated,

what they may not be is stated, but what they are in a standard or typical case is not on record. It is true each author has his typical case, but no two "typical cases" are alike. We start and end with confusion; then of what "typhoid fever" is. Upon this basis I wish to overthrow all authorities and make a standard of my own. To do this I shall analyze fever and then proceed to find out what is usually found in conjunction with that fever. I might mention, in passing, that the basis for fever, in this case, is such as can be applied to all cases of fever, where general.

In the study of equations I have often been misquoted. We have often said that one adjustment at one place was sufficient to break typhoid fever, which was accomplished in forty-eight hours or less. This is true. Yet when you look for the adjustment of this disease you find listed two places for adjustment. Fever, itself, has one subluxation, and the typhoid part (that which makes it distinctive) is the other one; that is, we have two diseases at the same time, one coming from each subluxation, and excessive heat of the bowels, general excess and the symptoms from the 2d or 3d lumbar. Either one of these alone would not bring on typhoid fever, but the two together with the right degree of each brings on that compilation. You could adjust P. P. and entirely eradicate any question of excessive heat in the bowels and just that much destroy the combination of two diseases which go to make typhoid fever. By adjusting C. P. alone you will destroy general excessive heat, and in leaving the P. P. symptoms you have just that much destroyed the combination of typhoid fever.

Adjusting C. P. and P. P. subluxations would mean you would destroy the combination known as typhoid fever. In the sense that adjusting one symptom of the combination has broken the combination, then it can be truthfully said that you adjusted C. P. and broke typhoid fever; the same as you could adjust a man at P. P. and relieve the bowels, yet he might still have a K. P. subluxation which made a costive condition possible. If a patient has constipation and costiveness, by adjusting K. P. you relieve the costiveness, but it would persist as long as you left K. P. alone. If you adjust K. P. and leave P. P. you will relieve the costiveness but not the constipation; by adjusting both you relieve both.

Do you get my idea about combinations? Adjusting C. P. alone takes away excessive heat (general), yet you still retain the bowel troubles. That is why I try to impress on your minds every day the importance of combinations of symptoms and that then the only value to you is that they lead you back to the combination of causes. In other words, the causes that exist in combinations are endless and end only when your imagination ends.

The books of today, especially those of symptomatology, are but records of imagination in their breadth and depth of men who

have gone before. So this is why I make this statement and I want it to go in the records because I do not wish to be misquoted on this proposition.

C. P.—Out of 9 different functions, 5 are involved.

P. P.—Out of 9 different functions, 6 are involved.

This is a consideration of numbers of functions only.

C. P.		Area.	Depth.
1st—10%	(—) less than normal.....	14%	28%
2d 8%	(—) excess of normal.....	16%	26%
3d 14%	(—) less than normal.....	18%	20%
4th 28%	(—) excess of normal.....	20%	20%
5th 76%	(—) less than normal.....	22%	18%

P. P.		Area.	Depth.
1st—18%	(—) less than normal.....	24%	22%
2d 29%	(—) less than normal.....	26%	20%
3d 42%	(—) less than normal.....	28%	18%
4th 78%	(—) less than normal.....	30%	16%
5th 21%	(—) excess of normal.....	32%	14%
6th 17%	(—) excess of normal.....	34%	12%

Nor is this all under consideration; we have area, also depth.

This is but a hypothetical case of what we have got to find, absolutely in combination, every time, to have typhoid fever. To interfere with one function, even in the slightest, or to omit one function, or to interfere with its area or its depth or degree, or to have it entirely absent, or to have one that is now plus becoming minus, or vice versa, means to break the combination known as typhoid fever.

In studying symptomatology, instead of giving you the combination of figures, they give it to you in hypothetical names and descriptions—that is the only difference. Here we have tried to reduce a hypothetical case down to therapeutical guesswork, and that is where you begin and end. That is why I say it is absolutely necessary for you to adjust both places to break that peculiar, particular kind of combination of symptoms that we have elaborated upon thoroly and which we call typhoid fever. I understand as well as you that anyone can adjust either of the two and break the combination, and you say, "I cured typhoid fever by adjusting one place." Yes, you have and you have not.

If you want me to define what is a typical case of typhoid fever, of scarlet fever, of diphtheritic fever, of small-pox, or other general combinations, all you have left is excessive heat,

which is "fever." The name in front adds on the combination to the fever. We have a fever and on top of that we have the other things which go to make the combination—fever is nothing more nor less than excessive heat.

C. P. and P. P. symptoms make typhoid fever; add on the K. P. and C. P. and something else and you make small-pox fever, and you add poisons that have been breathed into the lungs and then you have tubercular fever. That's why I say you cannot adjust typhoid fever and do it justice and do it at C. P. alone. If you ask me if one can adjust C. P. and break up the fever, I would say, YES, *every time*—C. P. and C. P. alone.

What is a "fever?" Is it not excessive heat and will not a subluxation at C. P. alone give fever? You may have the bowels so clogged up that they have not moved for two weeks, and adjusting C. P. will take away the fever. You may still have the groggy head and the clogged-up bowels, but the condition which made fever possible is gone. This is why we say you should adjust two places to do away with the symptoms of typhoid fever.

For instance, forget your body. In one corner of the room is a radiator; in another are some plants in flower pots. We make a lot of excessive heat and dry out the plants, causing them to wither and finally die, and we say that excessive heat plus the dying plant equals death. The plant is dead. Now we take away the excessive heat and we still have our plants, but our plants are dead—taking away the excessive heat did not return life to the plants. If the plants were not quite dead and we took away the heat (adjusted it) and then went over and put on some water (adjusting a P. P. subluxation)—the taking away of the heat equaling the C. P. adjustment. There are two combined conditions together and you can adjust the cause of each.

Q. If the water is not there, if the plant did not get the water or if a person did not get it, a very little heat is going to burn up what he has and he is going to have fever, but if he had water his tissue cells wouldn't die. Now; wouldn't the K. P. subluxations and the absence of moisture in the body constitute a fever?

A. As long as you have moisture you have no fever, but bear in mind that typhoid is a combined condition, the same as any other disease. A man comes to you and says he has a "nervous headache." You adjust 4th Cervical. Another person says he has sick headache and you adjust S. P. on both sides; still another comes who says he has a neuralgic headache, and you adjust At. P. So you study out combinations, and this is what you must do in typhoid. A great many of the early Chiropractors because they adjusted C. P. and took away the fever said they had taken away typhoid fever, or excessive heat, but it was only one stage or symptom of a dual symptom—not the whole thing. While you have corrected the fever with your C. P. adjustment and hence do not have typhoid fever, at the same time the work is only partly done.

We might say if we had an ideally normal man and he got a C. P. subluxation he would not have typhoid fever.

An enumeration of the meres involved in typhoid fever would be as follows:

C. P.—Myomeres and Dermameres of the entire body.

P. P.—Myomeres, Viscomeres, Osomeres and Neuromeres of the entire abdomen.

Where M, T, E, R, P, N, S, X or C is used alone, we take it for granted that 100 per cent of that function is passing thru nerves.

Where M—, T—, E÷, R÷, P÷, N÷, S÷, X÷, C÷, is used, it means that we have a higher quantity of that function; that is, we will have more abstract than negative, hence greater speed is acted out. M (for example) per unit of nerve, per 1 unit of time = 1 normal cycle; 2 Ms per 1 unit of a nerve per 1 unit of time = hyperfunction. Where M, T, E, R, P, N, S, X or C is used, it means that we have a lack of thought function, i. e., we will have less abstract than negative, hence less speed is acted out; for example, $\frac{1}{2}$ M per 1 unit of a nerve per 1 unit of time = $\frac{1}{2}$ one normal cycle; $\frac{1}{2}$ of one M per 1 unit of a nerve per 1 unit of time = lack of function.

For convenience we shall speak of these conditions as 100 per cent, 105 per cent or 95 per cent, etc., to show the amount of excess or deficiency, but the above standard will hold when correctly applied.

As an example of how endless this chain would be I offer the following:

% of Motor Function.		% of Motor Function.
M × 1 = 101		M — 1 = 99
M × 2 = 102		M — 2 = 98
M × 3 = 103		M — 3 = 97
M × 4 = 104		M — 4 = 96
M × 5 = 105		M — 5 = 95
M × 6 = 106		M — 6 = 94
M × 7 = 107		M — 7 = 93
M × 8 = 108		M — 8 = 92
M × 9 = 109		M — 9 = 91
M × 10 = 110		M — 10 = 90
M × 11 = 111		M — 11 = 89
M × 12 = 112		M — 12 = 88
M × 13 = 113		M — 13 = 87
M × 14 = 114		M — 14 = 86
M × 15 = 115		M — 15 = 85
M × 16 = 116		M — 16 = 84

% of Motor Function.		% of Motor Function.	
M	× 17 = 117	M	— 17 = 83
M	× 18 = 118	M	— 18 = 82
M	× 19 = 119	M	— 19 = 81
M	× 20 = 120	M	— 20 = 80
M	× 21 = 121	M	— 21 = 79
M	× 22 = 122	M	— 22 = 78
M	× 23 = 123	M	— 23 = 77
M	× 24 = 124	M	— 24 = 76
M	× 25 = 125	M	— 25 = 75
M	× 26 = 126	M	— 26 = 74
M	× 27 = 127	M	— 27 = 73
M	× 28 = 128	M	— 28 = 72
M	× 29 = 129	M	— 29 = 71
M	× 30 = 130	M	— 30 = 70
M	× 31 = 131	M	— 31 = 69
M	× 32 = 132	M	— 32 = 68
M	× 33 = 133	M	— 33 = 67
M	× 34 = 134	M	— 34 = 66
M	× 35 = 135	M	— 35 = 65
M	× 36 = 136	M	— 36 = 64
M	× 37 = 137	M	— 37 = 63
M	× 38 = 138	M	— 38 = 62
M	× 39 = 139	M	— 39 = 61
M	× 40 = 140	M	— 40 = 60
M	× 41 = 141	M	— 41 = 59
M	× 42 = 142	M	— 42 = 58
M	× 43 = 143	M	— 43 = 57
M	× 44 = 144	M	— 44 = 56
M	× 45 = 145	M	— 45 = 55
M	× 46 = 146	M	— 46 = 54
M	× 47 = 147	M	— 47 = 53
M	× 48 = 148	M	— 48 = 52
M	× 49 = 149	M	— 49 = 51
M	× 50 = 150	M	— 50 = 50
M	× 51 = 151	M	— 51 = 49
M	× 52 = 152	M	— 52 = 48
M	× 53 = 153	M	— 53 = 47
M	× 54 = 154	M	— 54 = 46
M	× 55 = 155	M	— 55 = 45
M	× 56 = 156	M	— 56 = 44
M	× 57 = 157	M	— 57 = 43
M	× 58 = 158	M	— 58 = 42
M	× 59 = 159	M	— 59 = 41
M	× 60 = 160	M	— 60 = 40
M	× 61 = 161	M	— 61 = 39
M	× 62 = 162	M	— 62 = 38
M	× 63 = 163	M	— 63 = 37
M	× 64 = 164	M	— 64 = 36

% of Motor Function.		% of Motor Function.
M X 65 = 165		M — 65 = 35
M X 66 = 166		M — 66 = 34
M X 67 = 167		M — 67 = 33
M X 68 = 168		M — 68 = 32
M X 69 = 169		M — 69 = 31
M X 70 = 170		M — 70 = 30
M X 71 = 171		M — 71 = 29
M X 72 = 172		M — 72 = 28
M X 73 = 173		M — 73 = 27
M X 74 = 174		M — 74 = 26
M X 75 = 175		M — 75 = 25
M X 76 = 176		M — 76 = 24
M X 77 = 177		M — 77 = 23
M X 78 = 178		M — 78 = 22
M X 79 = 179		M — 79 = 21
M X 80 = 180		M — 80 = 20
M X 81 = 181		M — 81 = 19
M X 82 = 182		M — 82 = 18
M X 83 = 183		M — 83 = 17
M X 84 = 184		M — 84 = 16
M X 85 = 185		M — 85 = 15
M X 86 = 186		M — 86 = 14
M X 87 = 187		M — 87 = 13
M X 88 = 188		M — 88 = 12
M X 89 = 189		M — 89 = 11
M X 90 = 190		M — 90 = 10
M X 91 = 191		M — 91 = 9
M X 92 = 192		M — 92 = 8
M X 93 = 193		M — 93 = 7
M X 94 = 194		M — 94 = 6
M X 95 = 195		M — 95 = 5
M X 96 = 196		M — 96 = 4
M X 97 = 197		M — 97 = 3
M X 98 = 198		M — 98 = 2
M X 99 = 199		M — 99 = 1

While you cannot have less than 1 per cent of motor function and probably long before that percentage was reduced you would have death, but we are using these percentages comparatively and you could run the excess function up to 404 per cent, so far as I know, altho probably before that point was reached the body would literally have consumed itself.

The reason I have so gone into detail here is to present to your minds the endless combinations that may occur in symptomatology.

Now when you consider that the above applies to the other eight functions, *Calorific, Sensory, Secretory, Excretory, Reparatory, Nutritive* and *Reproduction* and *Expansion*, then you get the idea of endless combinations—if you could have 100 excess degrees and 99 lack of, that would equal 199 combinations to be rung in on

motor function; now divide this by nine and you will have a faint idea of more combinations, and then remember that two or more of these may combine together and produce something different and you can scarcely compute the resulting combinations. Then still further bear in mind that depth and area also contribute towards the combinations.

As an example of the foregoing, when we have M T E R P N S X and C in one tissue cell it is normal—health, coördination or equality between abstract and concrete exists.

As a pathological phase we could have:

M +	1 M +	2 M +	3 M +	4 M +	5 M +	6 M +	7
T	T	T	T	T	T	T	
E	E	E	E	E	E	E	
R	R	R	R	R	R	R	
Y	Y	Y	Y	Y	Y	Y	
N	N	N	N	N	N	N	
S	S	S	S	S	S	S	
X	X	X	X	X	X	X	
C	C	C	C	C	C	C	

M +	8 M +	9 M +	10 M +	11 M +	12 M +	13 M +	14
T	T	T	T	T	T	T	
E	E	E	E	E	E	E	
R	R	R	R	R	R	R	
Y	Y	Y	Y	Y	Y	Y	
N	N	N	N	N	N	N	
S	S	S	S	S	S	S	
X	X	X	X	X	X	X	
C	C	C	C	C	C	C	

M +	15 M +	16 M +	17 M +	18 M +	19 M +	20 M +	21
T	T	T	T	T	T	T	
E	E	E	E	E	E	E	
R	R	R	R	R	R	R	
Y	Y	Y	Y	Y	Y	Y	
N	N	N	N	N	N	N	
S	S	S	S	S	S	S	
X	X	X	X	X	X	X	
C	C	C	C	C	C	C	

M +	22 M +	23 M +	24 M +	25 M +	26 M +	27 M +	28
T	T	T	T	T	T	T	
E	E	E	E	E	E	E	
R	R	R	R	R	R	R	
Y	Y	Y	Y	Y	Y	Y	
N	N	N	N	N	N	N	
S	S	S	S	S	S	S	
X	X	X	X	X	X	X	
C	C	C	C	C	C	C	

M + 29	M + 30	M + 31	M + 32	M + 33	M + 34	M + 35
T	T	T	T	T	T	T
E	E	E	E	E	E	E
R	R	R	R	R	R	R
Y	Y	Y	Y	Y	Y	Y
N	N	N	N	N	N	N
S	S	S	S	S	S	S
X	X	X	X	X	X	X
C	C	C	C	C	C	C
M + 36	M + 37	M + 38	M + 39	M + 40	M + 41	M + 42
T	T	T	T	T	T	T
E	E	E	E	E	E	E
R	R	R	R	R	R	R
Y	Y	Y	Y	Y	Y	Y
N	N	N	N	N	N	N
S	S	S	S	S	S	S
X	X	X	X	X	X	X
C	C	C	C	C	C	C
M + 43	M + 44	M + 45	M + 46	M + 47	M + 48	M + 49
T	T	T	T	T	T	T
E	E	E	E	E	E	E
R	R	R	R	R	R	R
Y	Y	Y	Y	Y	Y	Y
N	N	N	N	N	N	N
S	S	S	S	S	S	S
X	X	X	X	X	X	X
C	C	C	C	C	C	C

Then to show you the possibilities here we might have M normal and T + 1, etc., etc., and the other functions also normal. You can figure out without the detail just how endless this would be.

We have now gone carefully over each function showing that its quantity can be diminished or increased and proportionately as this is done we change its quality; we change its character of expression; we change the attribute of personification; the state of ideation as acted out is changed, consequently we find that in studying any one function we are impressed with the fact that it can be made much greater or much less. It is not necessary for me to mention all of them, but as an example take CALORIFIC. Increasing the quantity means producing excessive heat. This excessive heat can run anywhere from 98.6° up to as high as 115° in a given case; it can run down, on the opposite, to what would correspond to cell death.

We have only relative terms to express given quantities. Our thermometer registers in degrees and in .32 of degrees and even that is not exact, and instead of figuring function on a range of 15° as above and 15° below, we have taken 100% as a standard so that it may be applied to all functions alike in analyzing diseases.

Now, having considered each function as a separate thing capable of being intensified or decreased, and thinking to show you the endless possibilities of this connection, refer to the pathological chart given on the page preceding.

When all the nine functions are working and centralized in one tissue cell, as it were, that tissue cell is normal.

While it is true the proposition of pathological possibilities is endless, by way of carrying a practical application we will turn to Volume IV where we left off the last time, and beginning with our next lesson, we will apply these principles to every disease listed there.

Q. Doctor, what is the difference between Power and Force?

A. The distinction I make between power and force is this: Power is measured before expression; i. e., energy unconfined. Force is measured by how much power is expressed; for instance, power is measured as it goes thru a motor; force is expressed by the action in a motor—the utilization of power makes force and it is not force until utilized. Force is power, but power is not force—after it is utilized, not before.

GENERAL EQUATIONS.

Under general diseases we have the particular kind of equations which it is possible to have in any zone, in any locality in your body. By this is meant that every tissue cell has its nine functions, consequently, any equation we may wish to make can be found in any tissue cell anywhere, but in the use of terms it would be impossible to say that we had a disease of bone in muscle, consequently in terms when we express a difference in name to designate locality, the primary principle remains the same.

We will consider the equation of an Abscess:

Abscess—A combination of the following functions: Nutritive (lack of), calorific (excess of), reparative (lack of). Serous circulation is frequently involved. The same combination exists for cancers and pimples, only in larger or less degrees.

Abscesses could be induced without poison being introduced to make it. We also reach the conclusion that gonorrhoea and syphilis could be produced in any portion of the body without being introduced from without. Another proof of this is the fact of the lesions of syphilis being manifested in any portion of the body.

Violent concussion of forces equals severe subluxations which involves the same combinations of functions as we had before, but in different degrees, with different terminations of the fibres involved or impinged, hence the course of decomposition or states of poisons at their periphery would be different. With poisons already existing in the body, produced by previous subluxations, perhaps even though in a milder form, with causes, are already present, let us assume that more poisons are introduced into the system in some way—for instance, such as diphtheritic serum or vaccine virus, regardless of whether in large or small doses, so

that the already weakened tissues (because of the previous poison) are unable to accomplish the task set before them, so because of the present emergency the subluxation is made greater, and greater degrees of pressure exist now ; with the poisons now existing as the result of subluxations—the idea would be illustrated as follows:

The tissue cell, receiving 100 per cent of calorific impulses, is normal, also 100 per cent of reparative and nutritive impulses is normal, but if there is an excess of calorific impulses (excessive heat) with nutrition minus or lacking, as well as reparation, then we have a condition of decomposition or degeneration—call it cancer, boil, pimple, or what you will.

It is not necessary that poison at any time be taken into the body to have poison there—the cause and effect are both within; and when you analyze back to the subluxation shutting off the mental currents or impulses, and adjust that, you have restored the condition to normal.

From our standpoint it is the rankest folly for a physician to prescribe vaccine virus or diphtheritic serum to a person suffering from the same kind of poison—it was an excrement from the body which produced it; how can it be possible to do an already weakened structure any possible good? These are pertinent questions.

In each illustration that we carry of these equations pus is being made artificially thru disease; pathologically thru the interruption of currents, altho in every case it will vary, no two cases of any disease mentionable are alike. Look at this from any standpoint; go beyond educated man if you will and find that Innate Intelligence is aware of the pus being there and thon is in each and every case resisting it with as much force as it can muster thru the already depleted ranks of tissue cells. Thon is to the army of cells as a bugle call is to the tired soldiers—spurring them on. Innate is doing thon's level best with this army of depleted cells. *Lack of current causes the pus.* What difference does it make, after all has been said and done, whether the lack of current was in this body or that of someone else; the fundamental in each person is the same; the principles are alike. What can occur when more pus is introduced? Do you make the original condition worse? If so, how?

ACNE.

N—, C+, R—, E—. A does enter into every consideration of Acne. More or less surface is involved. As no one patch of surface could be taken as A, it would be impossible to say what would constitute A + or A—.

ACTINOMYCOSIS.

No Equation.

ACUTE AND SUBACUTE ARTICULAR RHEUMATISM.

As "rheumatism" constitutes a misnomer, an equation would not be justifiable.

ACROMEGALY.

X+, T+, E—, R—.

ADENITIS.

C+ "Itis" always indicated C+. The prefix but indicates where the "itis" is.

ADIPOSE—tissue in excess or lack of normal.

N+, X+ (where in excess). N—, X— (where a lack of).

ADMINISTRATION OF MEDICINES—An appeal to the mythical God, Jupiter, based upon superstition and faith. Chiropractic replaces it with knowledge and results.

ALLOCHIRIA.

O—, S—.

AMYOTROPHIC PARALYSIS.

M—, N—, O—, S—. In this given case we have a compound disease: That is, several are united under one common head.

ANASARCA.

E+, T+, A+. We add A+ at this time because more or less area is involved.

ANÆMIA.

N—, R—.

ANEURISM.

N—, R—, M—. M—alone could be considerably given as the equation in this case, but more or less of the other constituents are present or absent. The typical case would be M—, clinically it can often be proven that N—, R—, are absent.

ANIDROSIS.

In this case only the skin is minus moisture, therefore, E— is the equation. We might also have C + and you could run into endless combinations. If you have E— and C+ you would have eczema and, of course, with this there is excessive heat.

ANTHRACOSIS.

C+, R—, M—, N—, T+, E+.

ANTHRAX.

N+, C+, R—, E+, O+ and —, D+,
P+

ARRESTED DEVELOPMENT.

Really involves all the primary functions and would therefore be O—, to which we add A+ and D+ because we must consider depth and area.

(b)

ARREST OF DEVELOPMENT.

That condition wherein developmental forces have been created yet not expressed thru the physical medium.

(c)

ARREST OF DEVELOPMENT.

May be local to one zone, side or several zones. Depends entirely upon the subluxations involved. Adjust according to zone.

ARTERIES.

Conveyors of oxygen from lungs to tissues.

ARTHRALGIA.

S+, N—, C+, R—. It is only a question of degree in order to have an abscess.

ARTHRITIS DEFORMANS.

S+, N—, C+, R—, X+. The same conditions as above, if intensified would make this condition. X+ is added to this equation to imply expansion of new tissue cells which form the exostosis that is always present as an adaptative feature.

ARTHROPATHIES.

Same as above.

ATAXIA, LOCOMOTOR.

N—, S+, R—, or N—, as we may say here as of any condition it is O—, a lack of cyclic currents to the cells.

ATHEROMA.

T+, N—, C+, R—. The combination that may exist is just as you view it. It might imply atrophy, in which event it would be a case unto itself. Atheroma might be N— in combination with T— and E+, or another case might be N— with T+ and E—.

ATROPHY.

In study of the pathology of this condition we could say O—, or in many cases simple lack of nutrition (N—) would express the condition, but in a broad sense any function might become atrophied to the extent of its not being normal.

BACK.

Acute or chronic stiffness of; swelling in; tenderness in; pain in. Adjust according to dermamere or myomere involved.

BACTERIA.

Scavengers. In this respect offal must exist before parasites exist.

BAD BLOOD.

An impossibility in a living body. See Circulations, Serous and Blood in The Science of Chiropractic, Volume 2.

BLACKHEADS.

E—. By adding C+ to E— we have pimples; by adding N— and R— to C+ and E— we have a boil, and cancers and carbuncles would be a greater degree of the same thing.

BLISTER.

Is an intellectual adaptation to circumstances.

BLOOD POISONING.

Another myth that is a fable without even a moral.

BODY LICE.

These are to the outside of body what microbes, parasites or germs are to the inside. Lice are there to eat bodily scavenger matter and did not in any sense create it.

BOILS.

See Blackheads.

BONE ACHE.

O— or +, which is equal to any one of the nine primary functions being minus or plus in a bone—sensation (S+). Have an excess or lack of caloricity and you will have S+; have an excess or lack of expansion and you will have S+. Every abnormality is being interpreted by the mind. It is immaterial what functions are involved, just so the condition is great enough to be realized.

BONE, DISEASES OF.

Same as above, except S—.

CACHEXIA.

N—. This is a condition or symptom rather than a disease itself. Typhoid fever is an example of fever, yet there is no type of typhoid fever and cachexia may accompany it and other fevers. Nearly every person has a different idea of just what constitutes typhoid fever. One man will say that such and such is a type; another says that is anything but correct.

CAPRICIOUS APPETITE DURING PREGNANCY.

Intellectual adaptation to circumstances and requires no equation. It is possible and probable in many cases this capricious appetite is perverted, such perversion being subject to an equation.

CAPSULITIS.

C+ is equivalent to capsulitis, altho we can add S+ or S—, which, however, is always implied in every pathological condition.

CARBUNCLE.

C+, N—, E—, E—. This is only an exaggerated case of boils. In any such inco-ordinations we must have N, C, R, and we may have either T+ or E—, this will be demonstrated by the different cases.

CATALEPSY.

M+ in the muscular fibres, but the bodily condition, as a whole, is M— and the S— is an accompaniment.

CATARRH.

N—, R—, C+. To add T+ is equivalent to the product known as mucus. Once mucus is formed, it is proper that it should be expelled. It is not necessary to add E+ because that would be the consequence of an already abnormally formed product.

CHILL.

Purely adaptative.

1. Feverish chill = C+ and M+.
2. Temperature normal = M, C.
3. "Nervous" chill = S+ and M+.

Sometimes a person will chill with a temperature of 104° and again he will be normal as to temperature, but he may take an extremely acid substance into the mouth, which will cause a chill, or he may really be cold.

CLOASMA.

E—. In this condition we have pigmentation of the skin and this equation is sufficient, altho, of course, we might say in some case that it was T+. Glandular action is, of course, normal, but when the secretion is not removed it collects or becomes noticeable thru the inability of the excretory processes. There might be either case of excessive secretion of the glandular substance.

COLDS.

A misnomer. We will have no equation for a misnomer.

COLLAPSE.

In analyzing an equation of this kind the first question we should ask is, what is collapsed? Answer would be, tissue cell regardless of whether bone, muscle, ligament, cartilage, etc. Why collapsed? Because of cyclic currents being absent or an equation O—. What kind of O—? Absence of any one of the nine primary functions is equivalent to a collapse of that function in particular, as motor collapse, even calorific. Now you can see the combinations that are possible. That's why your equation in this instance would be as follows: M+ or a state of contracture or a permanent contraction and is produced by an excess of M only.

CONTRACTURES.

See M, C, P,— A, P,— S, P,— P, P.

CORNES.

If an adaptation to an external irritant it could not be considered other than normal, but if the result of a lumbar subluxation it would be abnormal and subject to equation: C+, S and X+. The subluxation of a toe joint might produce local pressure on nerves, bringing about the same conditions that would exist with a lumbar subluxation. We add S to this equation, not but what sensation is always understood. Sensation is the afferent half of each and every cycle of abnormal conditions. The process necessary to make pain is not an abnormal process, but a normal interpretation of abnormal impressions being made following the abnormal efferent half of the cycle.

CONSTITUTIONAL.

In all such one specific origin can always be found. General in appearance, but exact in the location of cause.

CONSTITUTIONAL ERUPTIONS OF THE SKIN.

E—, C—, R—, N—.

If you make a mental picture of this condition you will note the presence of heat and a dry skin. This equation is the same as we had for blackheads and boils and in the latter case (D—) is all you would add, since it has depth and the eruptive condition has area or surface—the only difference. Again, a degree of pressure in an equation makes a difference. The equation for the eruption added to heavy degree of pressure would be a boil.

CRAB LOUSE.

We cannot make an equation of the parasite itself because it is an intellectual adaptation to circumstances but we can show an equation for the reason of the parasite being present, therefore we would have N—, C—, R—, T+.

COUGH, GENERAL—FOUR KINDS.

Bronchial, Lung, Stomach, Throat.

Why does any person cough? Intellectual adaptation to abnormal circumstances or with the general object in view of clearing the air passages. See a mental picture of this condition. Any combination of functions which will make an excess of anything in any one of these four places, so to speak, will be equivalent to inducing a cough. T+, E—, (or E+) C+, N—, R—, M+, the latter being found most prominently in general cough. The object of the cough is to clear the air passages. Sometimes a cough is for the purpose of removing some foreign body.

Cough might also be induced by an excess or pressure interrupting the normal transmission of currents to produce normal contractions as in hiccough, which is a form of cough. Any combination of these would be endless.

ABNORMAL LAUGHING AND CRYING.

This is but an expression of abnormal thoughts abnormally created in an abnormal educated brain—with one lobe we laugh and with another we cry. This brings us to the relation of the condition of what particular lobe in itself, as regards its normality, not alone in one function but in eight (except reproduction) your equation then is primarily O— or O+ in any function.

CRUSTS.

C+, N—, R—, E—. The equation is well taken, although we will give just this one additional comment: A crust is the solidification of any decomposed tissue whether internal or external. Solidification means a drying process. We can have a mucous crust or we can have a crusty sputum. I wouldn't call the crusts formed from a pathological—or rather, formed from a sore, a pathological change, so we will not consider that kind of a crust in this equation.

DECREASED ABILITY.

This is covered by the nine primary functions of the body, or briefly, is O—. You can readily see where the equation for Decreased Ability, atrophy and collapse would be the same. It is true the equation might possibly and would vary in every case but the possibilities or the range or impressions would be from the same source. The difference in the three terms is purely a difference of judgment of depending upon the manner in which the physician diagnoses his case, but in reality it means the term collapsed or decreased ability. Atrophy expresses the same quantity.

DEGENERACY.

N—, C—, R—. Where there is a degenerated tissue we have the basis of N, C, R.

DISEASES OF DUCTLESS GLANDS.

We must consider the fundamental function of a gland. The gland secretes and excretes. The gland expresses all functions except Y and a gland might include any possible equation. However, if you are considering its internal function of secretion or excretion then this equation would be an interference with its secretion or its excretion and that is equivalent to T—, or T+, E—, or E+.

DISEASES OF THE DIGESTIVE SYSTEM.

In the following table of diseases the particular parts down to and including diseases of the bowels you must understand that each one of these places is composed of tissue cells which personify any combination of functions that is possible to conceive of with the elementary nine, minus Y. The fundamental condition for disease would be as laid down under Diseases of Ductless Glands with the exception of the particular internal function for which that gland or viscera is particularly noted. Exceptions are as follows:

Under Diseases of the Digestive System it would be any combination.

Under Diseases of the heart. H. P. on left side.

Under Diseases of the Kidneys—kidneys are glands—consequently coming under the same head as the diseases of ductless glands.

Diseases of the Liver, refer back to the diseases of ductless glands.

Diseases of the Gall Bladder, refer to ductless glands.

Diseases of Bile Ducts, refer back to ductless glands.

Diseases of Muscles, M— or M+.

Diseases of the Nervous System, principally T—, or T+, E—, or E+, for this particular reason: The nerves and brain are particularly sensitive to an interference of their function of secretion and transmission of currents where dry or too wet—I should, or meant to say creation instead of secretion. A nerve stuck in water, so to speak, acts as a resistance to a transmission of currents and sometimes you can make a water rheostat.

Diseases of the Pericardium, or endocardium which follows, both being a glandular or secretory tissue in functioning would follow the basis as given for ductless glands.

Diseases of the Pharynx, M— or M+.

Diseases of the Salivary Glands. See Ductless Glands.

Diseases of the Spleen. See Ductless Glands.

Diseases of the Thymus Gland. See Ductless Glands.

Diseases of the Thyroid. See Ductless Glands.

Diseases of the Tongue. M— or M+.

Diseases of the Tonsils. See Ductless Glands.

Diseases of the Bowels M— or M+.

In the above list of diseases of particular viscera is enumerated the most essential function in their make-up and which would be most liable to the more permanent in a pathological phase, although it is possible that in their combination could, would and does exist with it.

Disinfection, O— upon the part of the person applying the disinfection because of an atlas subluxation.

DROPSY.

Every tissue cell is in itself a reservoir for a certain amount of liquids. If that normal amount is abnormally increased, dropsy is the result. The subject of dropsy requires the addition of A+, or D+. D— and A+.

If there be too much secretion and normal excretion the product is dropsy. The equation is E— and T. If you have a normal secretion and a lack of excretion, the product is dropsy. If we have E and T the secretions and excretions are equal and no dropsy exists. Either one of these equations can be equivalent to dropsy. In the former instance where we have an excess of serum secreted and not a normal excretion of urea, that condition is named sero-dœma to imply a form of a disease for which there is no name in pathology today other than an originally named. Where there is a normal secretion and an excess of urea deposited in a tissue cell this is the typical dropsy known by pathologists. Serodœma does not pit under pressure Dropsy does. Serodœma increases weight but not corpulency. Dropsy does increase corpulency. In Sero-dœma we have no dilution of liquids. In dropsy we do. Many other changes could be given by which distinctions can be noted but the most prominent is the pitting of the one and the absence of pitting in the other. Serodœma is an intercellular deposit while dropsy is the intra-cellular deposit. One is within the cells, the other between the cells.

DRY TETTER.

N, R—, C+, I—. You will notice that the equation given for Dry Tetters is the same as for Bile. To explain then let us take two typical cases or examples. Understand that reasoning as we might attempt to do, with figures, is purely hypothetical. We are attempting approximately to give two typical cases. An equation for Dry Tetters is as follows: (N—10 (N—25
(R—10 Next (R—25

A

(C+10 is (C+50
(C—10 Boil: (E—10

In boil we have considered surface and depth of structure and we have increased to a great degree the minus or increased the function.

DYSTROPHY.

N—, or N+.

EMPYEMA—Articuli.
(Pus in a Joint).

$$\begin{array}{r} N- \\ R- \\ C+ \\ \hline S+ \end{array}$$

ERUPTIONS.

N—, C+, R—. Eruptions in general, eruptions on the surface of a body: A+, xN—, C+, R—. Local Eruptions as in Typical Scrofula is as follows: D+ xN—, C+, R—.

ERUPTIVE FEVERS.

$$\begin{array}{r} A, xC+. \quad N+, R-. \quad A \quad \begin{array}{l} (C- \\ N+ \\ R+ \end{array} \\ A+ \quad \begin{array}{l} (R+ \\ C+ \end{array} \\ \hline \end{array}$$

The name eruptive fever is a compound word. If asked to give an equation for eruptive—eruption locally you would give C+, N—, R—. Equation for a general eruption would give C+, N—, and E—. If asked for an equation for locally excessive heat you would give C+.

If asked for an equation for or of a generally excessive heat A+ equals C+. If asked for an equation of a compound condition composed of an eruption and a fever combined generally, the equation would be A+ equals C+, N—, R— in addition to A+ equaling C+. You understand before an eruption you must have C+. A compound term explains a compound condition, consequently demands a compound equation.

ERYSIPELAS.

A or A+ equals N—, C+, R—, E—. (S+).

EXANTHEMATA.

See eruptive fevers.

EXCRETION.

Is an intellectual adaptation to circumstances. If the organs of excretion are involved we would have to bring in O, A, D and F.

FATTY TUMORS.

A tumor is never a cancer but a cancer has always been a tumor, hence a tumor would have an equation of C— and S, while a cancer would be C +, N — and R—.

EXPECTORATION.

See Cough.

FEMALE WEAKNESS.

O— modified by area and depth. This is more or less a misnomer, being a title covering a multitude of conditions, so far as the conditions themselves are concerned and man has them as well as woman, the organ differs, as does its position, but the equation is

equivalently the same. Female Diseases, according to Theraputists, confines itself principally to diseases of the sexual organs wherein the function of reproduction is affected.

FISTULA.

R—, N—, C— and E—, with A involved, and thus differs from a boil in that D is involved in the latter, therefore with the former condition whether on the neck or chest might be termed a fistula and if a fistula of the rectum has depth involved we might call it a boil.

In dealing with fistula we are dealing with four separate diseases and the equation to indicate fistula is based on a consideration of these four. One patient might have R— in the rectum, in which case you might call it neuritis; patient number two might have N or a lack of nutrition in the folds of the rectum, and this we would probably call atrophy; the third person has excessive heat in the rectum; and still another has a flow of serous fluid constantly. Now any one of these four or all of them may combine to form fistula.

FRACTURE.

R—. The reason we have only this one function necessarily involved is that it is all that is really necessary.

FERUNCLES.

C+, N—, R—, E+ and A. The area in this condition would be greater than that of fistula.

GENERAL ACHING.

S+. Now suppose we have two lines one sixteen inches long and the other twelve. The given unit—or the time that you see the sixteen-inch line is one second—now the given unit of time in which you are looking at the two different lines or the two different quantities is the same. Now, you recognize in that one second of time that there is a difference. Now, did you see it by adding more line during the same space of time? That is the same kind of a question.

We will have to make our equation as follows on the efferent half. Efferent equals O— and Afferent equals S.

Q. That would be subluxation of the afferent nerve? A. Yes.

GIRDLE SENSATIONS.

This is a typical case of gout. Gout is simply a form of rheumatism, in other words, it comes down to the problem of what is rheumatism. This will be our equation: T— or E+; C+, S or S+.

GLANDS.

All glandular tissue performs the function of Secretion. To thoroughly carry on its duty secretive materials must be taken to it, this involving Serous Circulation. All glands are involved and become of a series of links in this chain.

GOUT.

Acute, chronic, irregular, arthritis deformans suppressed, where general.

See C. P and K, P—M, C, P—A, P—L, P, P.

HABITS.

Here we will keep in mind the pathological habit. O— will include the pathological habit or any combination of functions. Habits are the adaptations to the pathological conditions.

HEADACHE.

Efferent equals O—; Afferent equals S or S+.

Four kinds of headaches are included or are prominent in pathology. Headache is typical in all. The degree or intensity is illustrated by the degree of a name given to express that degree. The quantity of pain is induced by the degree of pressure; consequently location of subluxation and degree of pressure determine the various kinds of headache.

HEIGHT.

Again, we will deal with the pathological phase of this question. X—, with the dwarf. For a giant, X+, that is, we make the condition in excess or minus because we are adding the thought of a unit of time. For example, there should be a given instance, 100 cells extended over one minute of time in a normal man. In the dwarf there is possibly fifty cells per one minute; in the giant there might be 150 cells per one minute; consequently when the dwarf reaches the age of thirty he is shy a number of cells that he ought to have expanded at the age of fifty, that is for the giant; when the dwarf has reached the age of thirty he is shy the number of cells that ought to bring him up to normal because they have been absent. In the giant, at the age of thirty, he has expanded the number of cells that he ought to have expanded at the age of fifty. That is, the dwarf of thirty is fifteen years behind time or fifteen years slow. The giant at thirty is perhaps fifteen years ahead of his time in expansion.

HEMORRHAGE.

M—, R—. M— alone would produce varicose veins; it requires the combination to produce hemorrhage.

HEMORRHAGIC PURPURA.

O—, M—, A—. In hemorrhage we usually have one spot; one small area. The difference between hemorrhage and hemorrhage purpura is the same equation plus a greater area.

HYPERÆSTHETICA.

Hyper means plus, therefore we have S+. In considering Anæsthetic we would have S—. Anæsthetic being the opposite of hyperæsthetica the equation would be S—.

HYPERALGESIA.

Meaning sensation, hyper, meaning excess, and so we put this equation as S+.

HYPERPYREXIA.

According to whether local as in the general run of "fevers" or the true type of general excessive heat. This condition is exceedingly rare, although supposed to be common.

S. P.

Spl. P.

Li. P.

P. P.

K. P.

In combination with K. P.

HYPERSECRETION.

This would be T+.

HYPERTROPHY.

Is as follows: O+ with all the other functions plus.

IMMOBILITY.

O—. O— would include the minus of any one particular function. Also would include the minus of A. and D. in physical tissues, or considering F— and P— any immaterialities, immobility might include a minus quantity of I. A.

INCOÖRDINATION.

The terms immobility and Incoördination are not synonymous. The equations would be similar with the exception that immobility shows a lack of function, whereas incoördination might express a plus quantity, so that O+ or O— particularly and any one function plus or minus would be correct.

INFANCY.

O plus or minus would consider every phase.

INFANT.

Rupture in: M—. Infantile Paralysis: M—.

INFLAMMATION.

C+.

INSECTS.

I. A. Although the scavenger matter itself would be produced by N, C, R, and E—.

INSULATION.

Those nerves leading from the Educated brain are insulated, the others are not.

INTERNAL HEMORRHAGE.

M—.

INTERVALS BETWEEN MENSTRUAL PERIODS.

If normal: I. A. If abnormal: M— and R—.

JOINT.

Stiffness: M—, or might be induced by a combination of any of the following:

T+ or T—. E+ or E—. R—. N—. C+. S+.

KYPHOSIS.

C+. R— would produce the destruction of the normal shape of the bones themselves. X would equal I. A.

LACTATION AND SEXUAL FUNCTIONS.

Normal Lactation: O.

Excessive Lactation: T+, N+, or minus.

Lack of Lactation: T—, N+.

Sexual Functions if normal: Y.

If in excess: Y+.

If a lack of: Y—, broadly speaking, there exists a union by way of the brain between the breast and sexual organs. If normal coördination, O.

If excessive: O+.

If a lack of coördination: O—.

LICE.

I. A. The scavenger matter being produced by N, C, R, and possibly E— in addition.

LIVER SPOTS.

A misnomer; impossible to form an equation for a misnomer.

LORDOSIS.

C+, R—.

LOSS OF FEELING.

Generally localized anæsthesia, S—.

MALIGNANT PUSTULES.

M—, C+ and R—.

MARIE'S DISEASE.

A equals X+.

MEMBRANE.

Structural tissue.

MENINGOMYELOCLE.

T+. Middle age, O plus or minus.

MIOSIS.

M+, or M—.

MOBILITY.

O in general, M for specific, M+ and M—.

MONOPLEGIA.

M—.

MUSCLES.

O—. Any function could be involved in atrophy. Hypertrophy is a pathological condition always more or less adaptative, so we will differentiate between the pathological condition and the intellectual adaptation itself. We will call that X+ and I. A.

MUSCULAR TISSUE.

The equation for muscles holds good for muscular tissue.

MUSCULAR CRAMP.

M—for the Efferent and S— for the Afferent.

MYOSITIS.

A followed by M+ and C+.

MYOSITIS OSSIFICANS.

O—followed by M+, C+ and X+.

MYOTONIA.

O+ or M+ for the Efferent and S+ for the Afferent.

MYXŒDEMA.

E+, or E—. T+, or T—. N—, R— and S—.

NATIONALITY.

Influence of, upon disease: Naturally has NO influence upon disease other than that the expressions of functions must be adapted to the habitation. A Swiss has mountains to climb, the plainsman has the broncho to ride, etc. Occupation and the adaptability thereto is the vital issue, regardless of nation. See Occupations.

NERVE.

Nerves are mediums of transmission of Innate mental impulses from the brain to all tissues in the body. The only abnormality possible is lack of function. Composed of tissue, it is subject to all diseases as any other. Many misnomers exist that have been connected with nerves. No tissue is so abused or mutilated in books, literature and articles.

NERVOUS SYSTEM.

A title given to that aggregate of nerve fibrillæ that converge toward or radiate from the brain. The name applied to a compilation of nerves after leaving the foramen magnum.

NEURALGIA.

Is a misnomer and therefore there is no equation necessary.

NEURASTHENIA.

The same will apply to this.

NEURITIS.

Nerves are tissue similar to any other, and receive functions accordingly. They are subject to the above abnormality as one function.

NERVOUSNESS.

This is another misnomer.

NETTLE RASH.

A+ and D— followed by N—, O+ and R—. We add A+ because Nettle Rash is purely superficial and D— to show that there is no depth.

NON-UNION OF BONES AFTER FRACTURE.

R—.

NEUROSIS.

This is a misnomer.

NUMBNESS.

S—.

OBESITY.

X+¹ and N+.

OCCUPATIONS.

See Nationality. The kind, quality and character of the "occupation" has much to do with the concussion of external force with the internal resistance, thus becomes the most important external factor (with the Chiropractor) as regards the causation of subluxations.

ŒDEMA.

T+ and E.

OLD AGE.

O+, or O—.

OSTEITIS DEFORMANS.

C+ and I. A.

ORGANS OF EXCRETION.

There can be no equation for the organs, but for the excretion E+, or E—.

OSTEOPYTES.

X+ and I. A.

PACHYMENINGITIS.

C and T+.

PAIN.

S+ and I. A.

PALPATION OF SPINE.

See Volume 3 of The Philosophy of Chiropractic for local areas. The Chiropractor does not treat or palpate for diseases, but does for the physical representative of causes, therefore considers nothing is gained by the former.

PALSIES.

M+: Contractured muscles is M+ and the equation for both would be the same, the difference being in the fact that in contractured muscles the M+¹ is stationary while in the other M+ is spasmodic.

PARALYSIS.

Palsy is a form of paralysis and paralysis is but a numerical term used to designate the forms of cases in which there is a lack of action; palsy is spasmodic paralysis, and paralysis is a more or less permanent condition.

PARALYSIS MONOPLÉGIA.

See monoplegia under this head.

PARASITES.

I. A.

PARESIS.

M+, or M—.

PERCUSSION.

A diagnostic feature. As Chiropractors do not diagnose symptoms, effects or any disease, he has no use for this line of work.

PERIOSTITIS.

C+.

POISONS.

There can be no equation for poisons.

PROUD FLESH.

R—, N—, C+, followed by X+. A fungoid excrecence from a sluggish wound.

PSORIASIS.

This may be either A+ or D—, followed by C+, R— and T—.

PTOSIS.

This is M—.

PUSTULE.

N—, C+' and R—.

RACHITIS.

X—, N— and C+, or T+, or T— and E+, or E—.

RASHES.

A+, or D— followed by N—, C+ and E— and T—.

REFLEX.

Misnomer.

RESTLESSNESS.

O+, or minus times all the other functions plus or minus. Restlessness cannot be confined to any one function. Restlessness is the interpretation upon any function in the body which is not normal.

"RHEUMATIC FEVER."

C+. In this instance we will omit the equation for rheumatism and confine our equation to fever which would be C+. Rheumatism is a misnomer.

"RHEUMATIC GOUT."

See "Rheumatism."

"RHEUMATISM."

A misnomer, many of which were, have been and are being coined to express unknown quantities. Incoördination applies equally as well here as in any other disease.

See U. A. P.

A. P. S. P.

K. P.

U. P. P.

P. P.

L. P. P.

C. P.

RUPTURE.

M—. This covers it completely.

SAINT ANTHONY'S FIRE.

This may be A+, or D— times C+ and T—.

The color in St. Anthony's Fire cannot be shown by an equation of one function, but we must consider the excess of pigmentation which would really be due to a combination of T— and E— working together.

SALT RHEUM.

The same equation. The equation for Salt Rheum, for scabs and Scleroderma would vary not in the functions involved, but in the degree and the various functions working and under different combinations involving different areas in different portions of the body.

SCABS—SCALES.

See Eruptions.

SCLERODERMA.

In combination with K. P. and locality.

SCOLIOSIS.

C+, R—, I. A. and X+¹.

The difference between Scoliosis, Kyphosis and Lordosis is in the different portion of the vertebra in which the same combination is acting. For instance, to have C+, R—, I. A. and X+ in the center of the vertebræ produces Kyphosis: If the same equation is working with the Zygapophysis then the product will be Lordosis. If the same equation is working upon the left, etc., then the product would be Scoliosis. If the same combination works upon the right Zygapophysis then we have left Scoliosis.

The essential difference then being the different portion or portions of a vertebra or vertebræ in which the same equation works. The essential is where you get the fundamental as regards the formation of any curvature in the spine. You can readily see that the foundation is or would be the same.

SEBORRHŒA.

T+ and E+. T— and E would be the equation for Seborrhœa but if the Seborrhœa be much greater than the given example of T+ and E then we would be prone to give T+ and E— as the equation.

SENSE.

Knowledge of all action or disturbances that occur at any place, due to abnormal impressions existing following the functions of the efferent system of nerves.

SEROUS CIRCULATION.

A circulation of all that is liquids in the body. It has definite channels, adits, and exits, etc., etc. For thorough description see The Science of Chiropractic, Volume 2.

SEPTICÆMIA.

T+.

We might have something like this: Twenty per cent; Abscess, N—, C+ and R— in patient and N—, C+ and R— and E—, in the second party that is "poisoned." In the equation above we have the case as a given typical example of abscess with the patient having an abscess to be opened. The doctor, physician or surgeon being the second party opens the abscess, receives some of this "poison" in a cut on his finger and he has Septicæmia. The equation stands if the patient has the M. C. R. in five per cent degree more than that of the doctor—having assumed the doctor to have fifteen per cent—the doctor has in addition to what the patient has E—, or T+, consequently this condition shown is equivalent to a type of Bright's disease or something like that.

SEX.

Influence on disease: Mediums may vary in general shape or some local peculiarity, but so far as sex is concerned one is just as likely to sublaxation as the other.

SHOCK.

To give an equation of shock we must again consider the individuals. A is the normal man with 100 per cent of C. C., while B is the normal man and through concentration creates a blow equivalent to 125 per cent of C. C. 125 per cent of E comes in contact with 100 per cent of A. The consequence is that we disorganize A to the extent of twenty-five per cent. The equation of these two, one greater than the other, produces the temporary disease and we call the continuity that is shocked when interpreted by the Mentality of A shock. After the concussion has taken place the balance of continuity in A that remains is seventy-five per cent, consequently the 100 per cent of the third party makes the seventy-five per cent back to normal and 100 per cent is restored.

SIDE.

Pain in "Side" is used as vaguely as "Small of the Back." "Side" is anywhere from the head to feet. Adjust according to specific area.

(Pain—I. A.)

SIMPLE CONTINUED FEVER.

C+, continued.

SKIN.

See C. P., K. P., and Li. P.

SKULL.

Unhealed fractures of.

SLOUGHING.

I. A., N—, C+ and R—. M. C. R. explains the creation of the material sloughed. I. A. explains the process of why.

SPINA BIFIDA.

X—, X—.

SPINAL AND CEREBRAL LESIONS.

As all "lesions" are effects, the Chiropractor has nothing to do with them.

SPINAL CONCUSSIONS.

See Shock.

SPINE.

Curvatures of.

See Kyphosis, Lordosis and Scoliosis under this head.

SPINOUS PROCESSES.

The most important analytic feature to the Chiropractor. They are compasses that show the right or wrong way of functions.

SPLANCHNOPTOSIS.

M—.

SPONDYLITIS.

C+ and R— times I. A. and X+.

SPONDYLITIS DEFORMANS.

This is but another change in form, due to curvatures—of true curvatures. The difference is mainly in the different portions of vertebræ involved. The equation being the same as we get for Scoliosis, Kyphosis and Lordosis, C+, R+, etc.

We will take up first this morning the question of M. D.'s Sprain. I told you yesterday the reason for this equation work and now this morning we will do some of it, and the first one now is M. D.'s Sprain.

SPRAIN—M. D.'s.

O+ equaling O—in the case where O+ interferes with O and then we will add this qualifying statement—watch it carefully because there is a point of difference there that is applicable to any joint in the body: Strain or sprain can be very acute or chronic as for example, Mr. —, having no subluxation in his spine, receiving 100 per cent of current at every articulation in his legs passes down the street; he slips upon a pebble; his ankle suddenly turns; it swells up; it is inflamed, and the average physician would call this a case of sprained or strained ligaments. Taking it for granted further that as the result of this concussion of forces there has been no subluxation produced and no pressure upon nerves existing there will be no cutting off of currents consequently, going to these ligaments and, consequently reparation immediately begins taking place and in two or three days the ankle is back to normal. This is a case of where O+ or the stretching or the sprain or the strain of the length of the ligament is purely local and, consequently reparation being permanent and continued in the joints it becomes normal without further adjustment, but, take individual Mr. B. having no subluxations in his spine and no pressure upon nerves, walking down the same street, steps or slips upon the same pebble, receives perhaps a *little* greater concussion of forces and gives a little greater twist and makes a greater struggle to retain

or regain his equilibrium without falling and produces a subluxation as a result of this concussion of forces; pressure upon nerves exists and reparation is more or less interfered with and the strain or sprain becomes a prominent feature. That then, is the individual that needs adjustments. That is a case where O— equals O— in a permanent form and at a different place from that in which the effect is manifested. Now, take individual Mr. C. existing today with a subluxation and with a pressure upon nerves with a lack of current going to the articulations there or existing in a weakened condition—perhaps strong enough to do the daily work or daily walking but not strong enough to resist an extra or added emergency; he walks down the street and slips on that same pebble and makes a greater attempt to restore equilibrium than Mr. B.; this makes the old subluxation greater as a result of the same concussion of forces acting upon a weakened structure. This man would have a very great strain or sprain of those ligaments, and consequently, this case needs adjustments worse than the former. Mr. B. is a case that two or three adjustments will be sufficient and the strain or sprain is gone. Mr. A. needs no adjustments. Innate will take care of it herself. Mr. C. will need adjustments more than Mr. B. The length of the subluxation will determine the length or the time necessary to restore the strain or sprain.

First, slipping on that pebble, Mr. C. didn't know that there was anything the matter or anything wrong with the ankle, in fact, insists that there was nothing the matter with it, and consequently he could not understand why it is that Mr. B. got well in three days and it takes Mr. C. three weeks to accomplish the same thing. He couldn't see and he couldn't feel. Nor could he realize that his structures were already weakened and that it takes time to rebuild. Having had no test of the weakness of the structures he had no way of knowing how weak it was.

STRAWBERRY TONGUE.

Here is an argument that is going into your records because it is something that you will be up against some day when you are in the field and it may be hard to handle unless you know all about this particular feature; it is a purely logical problem. Strawberry Tongue analyzes itself into excessive heat and has the color characteristic of strawberries. This resolves itself into C+ and T+. T+ party because of the color—the pigmentation regardless of where in a body or what color or shade is one of the attributes of the secretory process.

SYMPATHETIC NERVOUS SYSTEM.

Based upon superstition and while in vogue now it will not be in fifty years. It is unknown to The P. S. C. and is replaced with a direct brain cell to tissue cell nerve connection.

SYMPATHY.

"By means unknown." See Dunglison's Dictionary and the lecture on this subject in The Science of Chiropractic, Volume 2.

SYMPTOM.

O+, or O—.

TABES DORSALIS.

Inasmuch as we referred to locomotor ataxia and so far we will pass it over with the recommendation that you refer to your Records for that.

TACTILE.

Name given to tissues that are so constituted as to receive impressions which are transmitted to brain and there interpreted by the mind. If pressures are hindering this transmission then function (circuit) is not complete.

TÆNIA.

I. A. I. A. is the connecting link between the tape worm and a state of conditions wherein there is a lack of digestive action and consequently, an excess of refuse. The tape worm is the scavenger.

TEMPERATURE.

C, or C—or minus.

TEMPERATURE SENSE.

See Temperature.

TENDERNESS.

I. A. and S+, or I. A.

Tenderness assumes three phases. The first is where there is a pressure upon the afferent sensory fibres, and that pressure, if light, intensifies the transmission afferently; consequently this would be or would make a greater interpretation. The second phase would be the tenderness purely adaptative following the concussion of forces or a contusion or a traumatic injury. Then the other would be intellectual adaptative form following the internal abnormal function as in a boil. A cancer, an abscess, or headache, or neuralgia. Tenderness: The interpretation that follows pressure, or of impressions arising from the abnormal vibrations following abnormal function in abnormal tissue cells after reaching the mind.

THERMOGENESIS—

This is C.

THORAX—

See H. P. and Lu. P.

THROBBING—

Sensation of would be S. Pain of might be in all of them, as to say O+ or O— times all the functions plus or minus.

THROMBOSIS—

Misnomer. T I C: M+ and A+ or minus.

Under this head it might be well to put this explanation:

Matter

and

Life.

Water and Dust.

Force and Intelligence.

In an equation of the Universe we might say it is composed of two things—one concrete thing and one abstract thing. Matter being concrete, and Intelligence and force being abstract. While I am calling the abstract state a thing, it is in reality not a thing. Thing must be a materiality and yet we have no term that speaks of any other phase as being a condition utilizable. We are prone to state that things concrete are utilizable and things not concrete are not utilizable and yet we are constantly utilizing the abstract things in the concrete or taking it for granted that force is positive and matter negative, and you apply the positive to the negative and you make a reality. You make a moving, live thing. Everything in the world in the material can be classified as either water or dust. For instance, water can be active and can be again subdivided into beer, wine, grape juice and a few other of the drinks we have. The only difference we are making now to the water is the fact that we are adding some particular kind of dust to the water and that gives it a color and that we call beer, wine, and so forth. Water has not the dust and beer and wine have.

Force is the thing which makes water live. Force germinates life into water. The great intelligence of man shows this particular life in water is damaging to life in man and therefore we kill the life in water by applying heat or by boiling it, and then he says the dead water is conducive to life in the man. A great world this.

TIC — S +

Local spasms. Are found in any portion of the body—usually in face. See M. C. P.

TIGHTNESS—

M + *followed* by I. A.

TINGLING—

Burning, numbness, etc. Impressions that follow various abnormal functions.

TONIC—

No equation necessary.

TRAUMATIC NEUROSIS—

No equation for that.

TREMOR—

M +.

TROPHIC DISTURBANCES—

N + or N —.

TUBERCULOSIS—

N — C + and R —. This is the fundamental combination wherever there is any degeneration. For instance, pus is a boil; pus from catarrh, pus from or mucus and sputum from or in tuberculosis and anything where there is death of tissue—NCR. For instance, we have a lack of nutrition and we have excessive

heat and we have no reparation, and you can see what kind of a picture that would make.

We all have a commonly accepted idea of what tuberculosis is; each authority writing on symptomatology pictures to his mind a standard case and writes his symptoms around that one particular case, yet no two cases of tuberculosis are alike in so far as one will have some accompanying symptoms which another case may not have. No one case can be accepted as a standard upon which to say that all others must reach exactly the same state of conditions or symptoms, or the same state of conditions and symptoms in order to be a case of tuberculosis. It is this range of play that is possible in variance between cases which sometimes give rise to disputes among physicians as to whether this is or is not tuberculosis. For instance, you and I are today carrying millions of tuberculosis germs and in a week from now were we to develop a severe case of catarrh of the lungs and those germs lived upon that decomposed matter and they were found therein, a physician would say, "Here is a case of tuberculosis of the lungs," whereas another physician having the same case, equally as bad or worse, of catarrh of the lungs, in the sputum of which he could find no traces of a germ, that case would be called catarrh of the lungs. When in reality there is no difference between a severe case of catarrh of the lungs and the mild case of tuberculosis, excepting that in one they find a bug and in the other they don't. That is what makes the qualifying statement of conditions between lung catarrh and tuberculosis.

TWITCHING MOVEMENTS—

M +.

URTICARIA—

N —, C + and R — with E —. In Urticaria there is a scaly and dry condition of the skin; it becomes necessary to consider the fundamental of any decomposition which is from N —, C + and R —, but the dryness of the skin is induced by the E —. If we were to induce the same form NCR with T — we would have a running sore wherein T + presents material which is constantly being decomposed by the NCR. NCR with E — would be the same as NCR with T + and then NCR + with 5 per cent of pressure and NCR E — with five degrees of pressure would be that one would cover four times the surface, or more surface than the other; or it would burrow four times deeper in the tissues than the other. Unquestionably A centers into either form of urticaria because it is a superficial disorder, so we might add to this question R or A +.

VACCINA—

Pure, a pure lie.

VACCINATION—

A myth based on superstition and fostered by ignorance.

VARIOLA—

See Smallpox.

VARIOLOID—

There is no equation for this because we refer back to variola.

VEIN—

See Venous Distention.

VENOUS DISTENTION—

M — is the equation for prolapsus or a weakened condition of the muscular fibres of the walls of a vein. The number of the muscular fibres involved is what determines the size of the distention. In addition to the amount or to the number of fibres involved the amount of current cut off from that particular portion of fibres is what determines the lack of resistance to the normal pressure of blood. This is the equation of the typical varicose vein anywhere in the body, be it large or small. Quite frequently we have an ulcerous condition developing. To produce an ulcer go back to that fundamental which is NCR and add that to the prolapsed tissue cell, and the product is ulcerous prolapsus.

VERRUCA—

$N - C + R - E -$ with A or A +.

WEAKNESS—

O — equals the same distribution to any one of the nine primary functions.

WEIGHT—

Strength does not recognize weight within its limits. The sensations following weakness.

WORMS—

I. A.

FIRST CERVICAL. AT P.

ZONE—

This word is used frequently to indicate various layers as it were. If the body is perpendicular then it can be divided into sections. Each pair of brain nerves has certain zones that it covers. See The Philosophy of Chiropractic, Vol. 3, for an extended description.

ABSCESS of Brain or Skull—

$N - C + R -$.

ABSCESS of Aural Meatus.

$N - C + R -$.

ANALGESIA—(Stupor) Aphasia—

S —.

APOPLEXY—

M —.

(Note.) Apoplexy is a more severe form of Epilepsy or Paralysis.

APRAXIA—

M — A +.

(Note.) Apraxia might be general in brain or specific.

APROSEXIA—

M — A —.

(Note.) Localized in the brain.

ATAXIA (Locomotor)—

N — R — S + N —. (See p. 15.)

ATHETOSIS—

M +.

ATHYMIA—

O ±.

BRAIN—

(Abscess of) N — C + R —.

(Acute Softening of) M —.

(Diseases of) O ±.

(Hydatids of) T +.

(Inflammation of) C —.

(Tumor of) X +.

(Insanity of) O ±.

(Tuberculosis of) N — C + R — and D +.

(Hydrocephalus of) T + E —.

Diseases of the Bulb O ±.

BULB—(Medulla) Diseases of.

BUZZING of the Ear—

X — and O — or minus times all the rest of the functions.

CATALEPSY—

M +.

CATARRH—

C — C + and R —.

CEREBRO MENINGITIS—

C +.

CHOREA—

M +.

CHRONIC DROPSY of the Brain—

T + and E —.

CHRONIC Cerebral Meningitis—

C +.

COMO—

I. A.

CONSTIPATION Headache—

Right in here I will give you a few ideas on headaches. Headaches are of two kinds. *The kind* that is induced as a direct result of pressure upon efferent nerves leading to your educated brain and produced by subluxations at the atlas, fourth cervical or in this region only. Adaptatively you can have many kinds of headaches; for instance, the bilious, constipated, periodical, kidney,

strain from the eyes, rheumatic and catarrhal, in other words, incoordination in any inferior meric zone may produce a headache in the corresponding superior meric zone. You will ask how I maintain that these are adaptative headaches. We have already learned the lesson that anything that is not normal efferently cannot be interpreted normally afferently. The interpretation afferently of the abnormal conditions manifested efferently means a normal interpretation upon something abnormal. For instance, we have a periodic headache. Consequently, impressions that are transmitted afferently to the brain are interpreted continuously. That type of interpretation we call pain. This is purely an intellectual adaptative interpretation. It is an attempt upon the part of the educated mind to notify his education that something is wrong and where it is wrong. For instance, in the periodic headache it is not necessary to adjust a case other than at P. P. Adjustments at P. P. restores period to normal and will also be restored back to normal interpretations. Now, by that I mean that every disease in a body is equivalent to producing some kind of a so-called headache. If we were to go into this matter thoroughly and localize each portion we would find that each disease in each viscera has a certain place in the head that it will produce a headache.

Now, that is nicely illustrated in the fact that the neuralgia headache is in the forehead—the sick headache is in the center of the top of the head. Nervous headache is all over the cortex, and the bilious headache usually locates itself on each side over the ear. The constipated headache and the periodic headache at the base of the brain—in the rear. Kidney headache locates itself in the crown of the head; that which is the strain of the eyes—take the strain headache immediately over and including the orbital arches. The rheumatic headache may take in a spot, be it large or small, in the head, and will be on one side or the other, or on both; or it can be in two or more places, in one side or both. The catarrhal headache, where the catarrh is in the nose, produces a headache between the eyes. So you might go on and localize this or these locations, but the signification I wanted to bring out was to classify the condition between—the difference between a headache as an adaptative form following some disease and the headache directly produced by efferent pressures. Now, it is not uncommon and it is quite prevalent in a typical case of periodic headache that you will adjust P. P. for the headache, and the headache will not be the same kind of pain. It is possible to have a headache without having the periodical trouble. It is not unusual to find the two together. If the periodical headache only appears once a month, and you adjusted atlas or fourth cervical alone, you wouldn't rectify the periodical headache.

Now, discrimination and systematization of these cases under adjustment has proven these ideas to be true. Next time you get a periodical headache—take the proper vertebra at P. P. and give it the right kind of an adjustment, and in a very few minutes

your periodical headache will disappear—the reason being that you have corrected the disorder in the pelvic region which was making possible the wrong kind of afferent impressions which were then interpreted as a periodical headache.

CAPROLALIA—

O + or O —.

This confines itself to a disease wherein it is possible to locate the disease in some one portion of the lobe of the brain which has to do with the manufacture of speech. Now, there is where we make one step in advance of Dunglison; we say one lobe of the brain.

CARPHOLOGIA—

O + or O —. A type of insanity.

CRANIOTABES—

I. A.

DEAFNESS—

M —.

In this type of deafness we are considering pressure upon efferent nerves, so that even normal vibrations should reach the ear. They are unable to be transmitted to the brain.

DEAFNESS—from hardened ear wax—. C +.

The hardenning of ear wax forming a solid consistency across the opening through which vibration should proceed is induced by excessive heat. Hardened ear wax is to the ear what gallstones are to the gall bladder, or renal stones are to the kidneys, or what the bladder stones are to the bladder.

DELIRIUM—

O + or O —. Implying that we might have a lack of nutrition there and have insanity.

DELUSIONS—

O + or —.

DEPRESSION—

The same thing.

DIPSOMANIA—

The same thing.

DOWNHEARTEDNESS—

O + or O —.

DISEASES of the Ear—

O + or O —.

DIZZINESS—

O + or O —.

DREAMS—

O + or O —.

DROPSY—

T + and E —.

DROWSINESS—

See K. P. It would be normally I. A. Some people, however, are drowsy all the time. I had a man once who slept twenty-five hours out of every twenty-four. Where did we adjust him? Atlas and Axis—it should also be K. P.

Other things being equal, a person will get drowsy when sleep is required as a necessity to permit reparation. They are both T —.

DRUM of the Ear—Inflammation of—

C +.

DULLNESS—Mental—

O + or O —.

DURA MATER—Cerebral Inflammation of—

C +.

DYSACUSIS—

O —.

EAR—Abscess of—

NCR.

PAIN of Ear—

I. A.

DISCHARGES FROM—

That would be N — C + E — to permit the discharge. The material would be E + to get it out.

ECHOLALIA—

ECLAMPSIA—

ENCEPHALITIS—

Acute or chronic, with or without hemorrhage, exudation or suppuration.

ENCEPHALOCELE—

EPILEPSY—

In combination with P. P.

See P. P.; coma from; convulsions of; physical manifestations of.

EXCITEMENT—

Abnormal; mental.

EXUDATIVE ENCEPHALITIS—

FONTANELS—

Prominent or bulging, sunken, large or delayed closure of.

HÆMATOMA AURIS—

HÆMATOMA of—

Tumor of blood as in the scalp of the newborn.—Dunlison. This is back on the basis of a hernia or rupture. M —. This being a bloody tumor, throws us back onto rupture of the walls of an artery, hence the equation for rupture or M —.

HALLUCINATIONS—

HEAD—

Abnormal fixity or retraction of; abnormal movement of; in acromegally; hydrocephalus; idiocy; nodding spasm of; rachitis of; pain of; excessive sweating of; tenderness in; etc.

HEADACHE—

“Neuralgic” (?) pain; sharp, stinging in character.

See also M. C. P.

S. P.

P. P. General Diseases.

HEAD LICE—

A scavenger found upon those heads where decayed matter exists, not through lack of cleaning but because a cause exists which produces offal. Means may be used to eradicate them time and again, but once have the cause adjusted and then no head lice.

HEARING—

See deafness.

HEARTSTROKE—

See Sunstroke.

HEBETUDO—

HEMICRANIA—

HEMORRHAGE—

M —.

ECZEMA of—

N. C. R. This is dry.

GRANULATION in:

C + E —.

POLUPI of—

Nothing more nor less than tumor or X +.

RUNNING from Ear—

NCR and E + and T +.

WAX in—

I. A.

ECHOLALIA—

O + or O —.

ECLAMPSIA—

M +.

ENCEPHALITIS—

C +.

ENCEPHALOPATHIA—

O + or O —.

ENCEPHALOCELE—

T + and E —.

EPILEPSY—

M +.

EXCITEMENT—

A normal person will not get excited. I believe the normal person can stand the excitement of the depression of seeing a death in his family and remain perfectly normal. The equation will be O — or O +.

EXUDATIVE ENCEPHALITIS—

NCR for Exudation.

C — for the Encephalitis and then NCR + and C +.

FONTANELS—

HÆMATOMA AURIS—

HALLUCINATIONS—

HEAD, abnormal fixity or retraction—

M —.

ABNORMAL motion of—

M —.

ACROMEGALLY—

X —.

HYDROCEPHALUS—

T + and E —.

IDIOCY—

O — or O —.

NODDING, spasm of—

M —.

RACHITIS of—

NCR I. A.

PAIN of—

I. A.

EXCESSIVE SWEATING of—

E +.

TENDERNESS in—

I. A.

HEADACHE—

O — or I. A.

HEAD LICE—

I. A.

HEARING—

Leave that.

HEAT STROKE—

See Sunstroke. What would be heat stroke. T — and E —.

HEBETUDO—

O + or O —.

HEMICRANIA—

See Neuralgia.

HEMORRHAGIC ENCEPHALITIS—

N — and C +.

HYDATIDS—

T +.

HYDRENCEPHALOCLE—

T + and E —.

HYDROCEPHALUS—

T + and E —.

HYPERACUSIS—

O +.

HYPOCHONDRIASIS—

O + or O —.

HYSTERIA—

O + or O —.

COMO—

I. A.

CONCUSSION of—

I. A.

HEADACHE of—

I. A.

CRISIS of—

No equation without hysteria of, crisis of, or concussion of.

EPILEPSY—

A person falls down to the floor and is unconscious. An hysterical person is conscious but they are hollering around for water and stuff like that.

In making a contrast between the two cases I would say epilepsy M + and Hysteria M + and O + or minus. The M + being for results of Hysteria and the O + or O — being for the brain in Hysteria. If we were to speak of a case of Hysteria crisis of insane contractions of muscles there we would have a typical mild case of epilepsy.

HYSTERO—

M + or M — and Epilepsy M —.

HYSTRONIC ZONES—

No Equation.

IDIOCY—

O —.

ILLUSIONS—

O —.

INFLAMMATION OF THE BRAIN OR MENINGITIS—

C +.

INSOMNIA—

O +.

INTELLECTION—

O + or O —.

LETHARGY—

If following traumatism your basis of any form is I. A.,
Lethargy, if normal, other things being equal, would be I. A.
Pathologically, lethargy would be M —.

LICE—

I. A.

LYSSOPHOBIA—

O + or O —.

MEDULLA, diseases of—

O + or O —.

MEGALOCEPHALIC—

X +.

MEGALOMANIA—

Is insane, so it is X + for the increased size of the head and
O + for the mania.

MEMBRANE, mucous—

Couldn't put that.

MEMORY, loss of—

O —.

MENINGITIS CEREBRO—

C +.

MENINGITIS—

C +.

MENINGOCELE—

Dropsical condition in the meninges of the brain. T + E —.

MENTAL DEPRESSION OR EXCITEMENT—

O + or O —.

MIGRAINE—

Same as for neuralgia.

MIND BLINDNESS—

O —.

MIND DEAFNESS—

O —.

MIND ANOSMIA—

O —.

MIND AGEUSIA—

O —.

MIND ATACTILIA—

O —.

MORPHINE HABIT—

O —.

MYDRIASIS—

M + or M —.

NEPHRITIC HEADACHE—

I. A.

NERVOUS DEAFNESS—

M —.

NEURALGIA—

The same as Neuralgia. See General Diseases.

NEURASTHENIA—

I. A. We will offer no equation.

NODES ON SKULL—

X +.

NODDING SPASM—

M +.

OCULAR HEADACHE—

I. A.

OCULAR VERTIGO—

I. A.

OTORRHŒA—

NCR.

PARAGRAPHIA—

O + or O —.

PARAPHRASIA—

O + or O —.

PIA MATER, Cerebro inflammation of—

C +.

PITUITARY BODY—

O + or O —.

POLI ENCEPHALITIS—

C +.

POLYP of the Ear—

X +.

PSEUDO ANGINA—

It is false; therefore we will have nothing to do with it.

PHYSICAL A. D. Mental conditions—

O + or O —.

PUERPERAL CONVULSIONS—

M +.

PUERPERAL MANIA—

O + or O —.

We will make this statement: Puerperal Mania, the same as Puerperal Convulsions, but we change the equation here between

Puerperal Mania and Puerperal Convulsions to imply that Puerperal Convulsions are M + of muscles, whereas Puerperal Mania is a mental insanity.

RUNNING FROM THE EAR—

NCR.

SALAAM CONVULSIONS—

M +.

SCALP, tenderness of—

I. A.

SEROUS MENINGITIS—

C +, T + E —.

SOMNAMBULISM—

O + or O —.

SOMNOLENCE—

Other things being equal, I. A. Pathologically, O—.

SUNSTROKE—

T — and E —.

TEMPER—

O +.

TENDERNESS OF THE HEAD AND SCALP—

I. A.

THROBBING in Ear—

I. A.

TORTICOLLIS—

M +.

TRAUMATIC HYSTERIA—

This would be a case of M — and O + or minus. M — in case of the lack of responsive contractions at the time of the concussion. The hysteria being O + or O — in the brain.

TUBERCULOSIS of the brain—

NCR.

TUMORS of the brain—

X +.

TYMPANITIS—

C +.

ULCERATION of the head and face—

NCR.

UTERINE HEADACHES—

I. A.

VERTIGO—

I. A.

WATER ON THE BRAIN—

T + and E —.

WAX—

C + where it is hardened.

This is great work for you in familiarizing yourself with this class of work and physiology, etc. For instance, this briefly running over some of these terms such as these different kinds of encephalitis, the nephritic headache, puerperal convulsions—they but show the combination of two or more diseases and then again take under the heads and the various names indicating various types of insanity. They will come back and clear up some equation. Then again, the various terms or names indicating degeneration or decomposition of tissue, and your equation is all the same.

This goes to show that in this chapter, running over probably twenty names indicating an NCR condition, the only difference between all of them is just a matter of degree. One will be perhaps a 5 per cent degree and they give that a name; another 10 per cent degree, and they give that a different name and give this a different name because it expresses a different degree in the same actions of the individual. Another individual has 80 per cent of a degeneration condition and they give that another name.

The same basic principle is involved in all of them. No difference. There is the value of this equational system, the whole thing being only a combination of functions.

Now, we have here the polyencephalitis, the meningitis and the encephalitis, etc., and you are brought to realize that even those names change all the time and it is just one of function—caloricity—and that is plus. It simplifies the whole thing down to a test of the function involved.

Therefore, the minute that the patient comes to you and he says, "Doctor, I have encephalitis," why, that don't frighten you. There was a time you would have said, "Oh, holy horrors!—how many legs has it?" Today you will immediately see the word encephalitis and you see the encephalation, and you see the caloridity plus; you see the brain and the excessive heat there.

SECOND CERVICAL AX. P.

ACNE—

NCR and E —.

CATARRH—

NCR.

CONVULSIONS—

M +.

ELEPHANTIASIS—

In considering this equation I am bearing in mind a typical case of elephantiasis—the case where the only function abnormal is expansion. It is true that elephantiasis may have with it a dropsical condition or you may have a lack of nutrition or excessive heat, but the typical case is X +.

FACIAL PARALYSIS—

M —.

FACIAL SPASM—

M +.

LOCOMOTOR ATAXIA—

M —, R —, S + and N —.

SPASMODIC TORTICOLLIS—

M +.

SWEATING OF HEAD—

E +.

WRYNECK—

M +.

SECOND AND THIRD CERVICAL.

ACNE—

NCR and E —.

AMAUROSIS—

I —.

ANOSMIA—

NCR.

CATARRH—

NCR.

CHEEKS, puffing of—

Pathologically, C + or X +. Normally it might be I. A.

CONTRACTURES of the muscles of neck—

M +.

CRAMPS of muscles of neck—

M +.

ERYSIPELAS of face and head—

NCR with T + with A.

MONOPLÉGIA—

M +.

MIMIC SPASM—

M +.

NARES AND NASAL—

Discharges of NCR.

OPHTHALMOPLÉGIA—

I—.

RETROPHARYNGEAL ABSCESS—

NCR.

SLEEPLESSNESS—

I. A.

Adaptatively I. A. and pathologically I —, H +, G +, U +.

THIRD, FOURTH AND FIFTH CERVICAL M. C. P.

ACNE—

NCR and S —.

AMAUROSIS—

I —.

ANÆMIC headache—

Anæmic Headache I. A. and the anæmia N —.

ARHYTHMIA—

M + or M —.

ARTHRITIS—

C +.

ASTASIA—

M —.

ASTHENOPIS—

I —.

ASTHMA—

NCR with nasal catarrh.

ASTHENOPIA—

BARBER'S ITCH—

NCR, E — with A. Barbers will tell you that the itch is carried from one to another and today in all barber shops they make them disinfect their razors and all that stuff to kill the germs.

Now, from the point of cleanliness this is all right, but from the point of the transmissibility of disease I think this is all folly, because you can see if it is true that barber's itch is dependent upon N —, C + and R — and E — and A in a person's body, then the condition must exist before a person can have barber's itch. I can illustrate the equation by a picture. Now, this is a flower garden, this is a flower patch, this is a flower pot and these are real flowers. Now, as long as we keep moisture and a certain amount of heat and nutrition and the reparative functions are normal through that earth into that plant, then these keep on growing, but supposing that I take away the water and let the earth get dry; we take away the reparative possibilities, no nutrition, and we take away the heat and it gets cold. Now, this whole condition is going to dry and in the drying process it flakes, and these flakes fly, and that is the condition of skin eruption.

BLEEDING—

M—.

BLINDNESS, color, etc.—

I —. I wouldn't take I — here, but I would put O + or O — for this reason: Color blindness is a lack of ability of the mind to discriminate between colors, because of the absence of color impressions being received at and through the eye. According to this definition must grant I — because I — exists in the eye, thus it is unable to receive the proper quantities of vibrations

characteristic of the various colors. But we have the same condition provided the brain lobe, which receives these impressions, does not get its normal quantity of function, thus destroying the normality of that lobe. It makes no difference whether that function or any one of the nine is involved, because the result will be the same. Plus or minus any one of the functions and I. A. in this particular lobe of the brain means to throw that brain into a state of confusion—a state of inco-ordination. Thus, color blindness is a factor. According to this broad statement it can be applied equivalently to any lobe in the brain; we can have thought blindness; we can have thought deafness; wherein there is a state of confusion of thought.

BOILS—

NCR.

CATARRH—

NCR.

CHEEKS, abnormal circumscribed redness of—

T +.

CHICKEN-POX—

NCR E —.

CHRONIC NASAL CATARRH—

NCR with this statement; the question of time is the only factor which makes the difference between catarrh of the head and chronic nasal catarrh.

COLD in the head—

NCR with this statement: Cold in the head and chronic nasal catarrh are one and the same thing; the equations are the same, the difference being in the mind of the other fellow that looks at them.

CONJUNCTIVITIS—

C +.

CORNEA, ulcers of—

NCR. Inflammation of equals C +.

CORYZA—

NCR.

DENTITION—

Delayed, X —.

Brittle dentition is T —.

Chalky would be E —.

DIPLEGIA FACIALIS—

M —.

DISCHARGES from the nose—

NCR.

DISEASES OF THE EYESIGHT—

O + or O — or I + or I —.

DISEASES—

Nervousness, Misnomer.

DISEASES OF THE TEETH—

O + or O —.

DIZZINESS—

O + or O —.

EPIPHORA—

E +.

EPISTAXIS—

M —.

EPITHELIOMA of eyelid—

NCR and D.

ESOPHAGUS—

O + or O —.

EUSTACHIAN TUBES—

O + or O —.

EYE, inability to close—

M —.

PAIN IN—

I. A.

DISCHARGE from—

NCR.

EYESIGHT—

I + or I —.

FACE, abnormal or lack of color of—

T —.

ECCHYMOSIS, of—

M —.

FLUSHING of—

I. A.

FACE, acromegaly of—

X +.

FACIAL PARALYSIS—

M —.

FACIAL HEMIATROPHY—

N —. Atrophy is a diminution of size or depletion of tissue cells; we might say that typical atrophy is T —.

FARSIGHT—

M —. I am basing the fact of M — on the anatomical knowledge that farsightedness or nearsightedness is induced by a lack of normal contractions of the sets of muscles which have to do with adapting the eye to the distance of an object. If the muscles do contract normally then we have the normal sight so far as adaptation is concerned.

OSTENTITIS DEFORMANS—

C + with or without I. A.

MYOPATHY—

O +, or O —.

ŒDEMA, or swelling of—

X + with T + and E —.

GOUT—

C +.

GUMS, sponginess of—

N — and T +.

ULCERATION OF—

NCR.

BLEEDING FROM—

M —.

HEADACHE—

Misnomer.

HEMIANOPIA—

I —.

HÆMORRHAGE—

M —.

HERPES, facial—

NCR.

HORDEOLUM—

NCR.

HYPERÆTESIA—

I +.

HYPERASPHRESIA—

One or both sides.

INFLAMMATION OF THE CORNEA—

C +.

INFLAMMATION OF THE CONJUNCTIVA and the eye-lids—

C +, the only difference being the changing of the place of the inflammation.

INFLUENZA—

I. A.

INSOMNIA—

I. A.

IRIDOPLEGIA—

M —.

IRIS, inflammation of—

C +.

IRITIS—

C +.

ITCHING—

E —.

JAW, paralysis of—

M —.

KAKOSMIA—

Nothing.

LACHRYMATION—

T and E.

LAGOPHTHALMOS—

M —.

LA GRIPPE—

NCR and E +.

LOCKJAW—

M +.

LUPUS—

NCR.

MALAR BONE, tenderness of—

I. A.

MEASLES—

NCR, E — with A.

MEMBRANE, mucous of the nose—

NCR.

MORTIFICATION OF THE JAW—

NCR.

MYADRIASIS—

M —.

MYOPIA—

M —.

RIGID NECK—

M +.

Tenderness of neck, I. A.

NARES AND NASAL—

See also U. Cer. P.

NERVOUS PROSTRATION—

Misnomer.

NEURALGIA—

Misnomer.

NOSE, discharges from—

NCR.

Diseases of the nose: O +, or O —.

Pain in the nose is I. A.

Regurgitation of fluids through: M +.

Abnormal shape: X +, or X —.

Size is X +, or X —.

Color is T +, or T —.

Ulceration of nose is NCR.

Stenosis of the nose is M +.

Catarrh of nose is NCR.

Itching of: NCR.

Swollen: X +, or C +.

Bleeding from: M —.

OPTIC ATROPHY—

N —.

OZÆNA—

NCR.

PALSIES OF THE FACE—

M —.

PARALYSIS OF—

M —.

PAROSMIA—

O +, or O —.

PHOTOPHOBIA—

O +, or O —, or I +, or I —.

POLYP of the nose—

X +.

PSORIASIS—

NRC and E — and A.

PUFFING CHEEKS—

X, or C +.

PUPIL contracted—

I —.

Dilated: M —.

Lack of response: M +, or M —.

LACK OF RESPONSE TO LIGHT—

M +.

REGURGITATION of fluids through the nose—

M +.

RHINITIS—

C +.

RISUS SARDONICUS—

M +.

SCARLET FEVER—

NCR and E —.

SCREW DRIVER TEETH—

X +, or X —.

WEAK SIGHT—

I —.

SLEEPLESSNESS—

I. A.

Pathologically H +. I +, G — and N +.

SMALL POX—

NRC and E — and A.

SMELL—

O + and O —.

SNEEZING—

I. A.

SORDES—

T +.

SPEECH, alterations in manner of—

I. A.

NORMAL MECHANISM OF—

I. A.

SPUTUM—

NRC—Dead matter.

STENOSIS—

M +.

STRABISMUS—

M +, or M —.

STYE—

NRC.

SUBCONJUNCTIVAL Hæmorrhage—

M —.

SYCOSIS—

TEARS, flowing of—

I. A., or E +.

TEETH, eruption of—

NRC.

Grinding of: I. A.

Abscess of roots: NRC.

Notched, dentated or decayed: X +, or X —. For the first and decayed is NRC, and the screw driver is X +, or X —.

Chattering of: M +.

TEETHING—

Should be accompanied without pain or excessive heat; if there is, adjust cause.

TETANUS—

M +.

TIC DOULOUREUX—

S +.

TIC—

S +.

TOPHI—

T +.

TRISMUS—

The same as tetanus or M +.

VERRUCA—

NCR and E — and A +.

VOICE, Nasal—

O +, or O —.

WAKEFULNESS—

I. A.

XANTHELASMA—

X + and T +.

FIFTH AND SIXTH CERVICAL L. C. P. OR U. A. P.

ACNE—

N —, C +, R —.

ARM, inability to move—

M —.

ARMPIT, tenderness of—

I. A.

Excessive perspiration of: E +.

ASTHMA—

Asthma in any degree is nothing more nor less than a dry calorific condition of the mucous membrane of the bronchial tubes or the tubes of the lungs. Your equation is: C + and E —. Asthma may eventually terminate into tuberculosis. If so, your equation will add N — and R —. In all asthma cases there is more or less of a raising of a phlegm. Therefore we might say that typical asthma is E — and C +, but clinically asthma is N —, C +, R — and E —.

BOILS—

N —, C +, R —.

BRONCHI—

Obstruction of: I. A.

BRONCHIECTASIS—

M —.

BRONCHITIS—

C +.

BRONCHO-PNEUMONIA—

C +.

BRONCHORRHŒA—

N —, C +, R — and E +.

Nothing more nor less than Asthma only running—liquid form.

CHOKING ATTACKS—

M +.

CHRONIC RHEUMATISM—

M —.

CLAVICLE, swelling on—

X +.

Swelling above: X +.

Swelling below: X +.

Swelling of the Clavicle: X +.

If the swelling is of tumorous consistency then the above equation is correct. If swelling is implied to mean an enlargement of what already existed, then C + might apply, or T + and E —, if the swelling be of a watery consistency.

COLDNESS OF HANDS—

C —.

COUGH, Bronchial—

I. A.

CRAMPS—

M +.

DYSPNŒA—

M —.

ELEPHANTIASIS—

X +.

Typical Elephantiasis: X +.

Clinically the case might prove X + with T + and E —.

ERYSIPELAS—

N —, C +, R — and E —.

FACIAL PARALYSIS—

M —.

FACIAL SPASMS—

M +.

FELON—

N —, C +, R —.

HAND, atrophy of—

N —.

ARTHRITIS DEFORMANS—

C + and I. A.

HAND, Spade—

C + and I. A.

HAND, coldness of—

C —.

HAND, excessive sweating; urea of—

E +.

HANDWRITING, defects in—

M +, or M —.

HAY ASTHMA—

C +, E —.

HAY FEVER—

C +, E —.

HUMERUS—

Enlargements: X +.

Swelling: T +, E —, or could be C +, or X +.

Pain of: I. A.

Atrophy of: M —.

Exostosis on: X +.

Fractures unhealed: R —.

JOINT—

Stiffness: M —.

Pain in: I. A.

LARYNX—

Affections of: O +, or O —.

Catarrh of: NCR.

Tumors of: X +.

MOUTH, diseases of—

O +, or O —.

MYOCLONIA—

M +.

NEURALGIA—

No Equation.

OBSTRUCTIONS, Bronchial—

We can only say to the word "obstructions" this qualifying statement: Pathologically it would imply X +, or C +. Traumatismatically we might consider a seed as an obstruction. In the latter instance: I. A. would take place.

RADIUS—

Enlargements of: M +.

Osteitis of: C +.

Osteomalacia: C +, N —, R —.

Eburnation of: C +, I. A.

Take the same equation for Osteomalacia and add to it I. A.

SHOULDER—

Stiffness in: M —.

Pain of: I. A.

Drooping of: M—.

STERNO MASTOIDS, enlargemnt of—
X +.

STIFFNESS OF SHOULDER JOINT—
M —, M + or I. A.

THROAT, diseases of—
O +, or O —.

FIRST AND SECOND DORSAL—A. P.—U. H. P.

ACNE—
NCR and E —.

AORTA—
Aneurism of: M —.

ARM—
Miscellaneous signs and symptoms connected with: O +, or
O —.

ARMPIT—
Tenderness of: S +.

ARRHYTHMIA CORDIS—
M +, or M —.

ASTHMA—
C +, or C —.

ASTHMA—
With Nasal Catarrh: NCR.

ATROPHY—
Of arm: N —.

BREATHING—
Difficult: M +, or M —.
Painful: M +, I. A.
Rapid: M +.

BRONCHI—
Same as described under "Bronchi" in U. A. P.

BRONCHITIS—
Acute or chronic: C +.

CARDIA—
Spasm of: M +.

CARDIO—
Pulmonary murmur of: M +.

CHEST—
Pain in: I. A.
Distension of tissue of: M +.
Oedema of: T + and E —.
Unilateral or localized swellings of: C +, or M +, or T +
and E —.

CHRONIC—

Rheumatism of arms.

CLAVICLE—

Same as described under L. C. P., only lower zones.

CLAW HAND—

M +.

COLDNESS OF HANDS—

C —.

Coldness of hands where wet: C —, E +.

Coldness of hands where hands are scaly: C —, E —, T —.

In other words, you have three different diseases. Now you will have a coldness of the hand. Then you will have a scaly hand. Then you will have a dry hand.

COUGH—

Bronchial: I. A.

CRAMPS—

M +.

DILATATION of heart—

M —.

DISEASES OF THE HEART—

O +, or O —.

DULLNESS—

Cardiac: M —.

DYSPOŒA—

M —.

DYSTROPHIES—

N +, or N —.

ELEPHANTIASIS—

X +, pathologically.

X + with T +, E —, clinically.

ERYSIPELAS—

NCR. E —.

FELON—

NCR.

FINGER NAILS—

Stunted growth of: X and N —.

FINGERS—

Blue or waxy: T +, or T —.

Clubbing of: X, N —.

Distortion of: C +, I. A.

Cramped: M +.

Gouty: N. C. R.

GOUT—

In arms: N. C. R.

- HANDWRITING—
Defects in: M +, or M —.
- HAY ASTHMA—
C +, E —.
- HAY FEVER—
C +, E —.
- HEART—
Aneurism: M —.
Dilation of: M —.
Diseases of: O +, or O —.
Displaced: M —.
Fatty: X +.
Fibroid: X +.
Hypertrophy: M —.
Pain of: I. A.
Rupture of: M —.
Organic diseases of: O +, or O —.
Palpitation of: M +.
- HÆMORRHAGE—
M —.
- HUMERUS—
Same as under U. A. P., only lower zones. See U. A. P.
- HYDROTHORAX—
T + and E —.
- HYPERTROPHY—
M +.
- HYPERTROPHY—
C +.
- IMMOBILITY—
M —.
- INEFFECTUAL systole or diastole—
M +, or M —.
- JOINT stiffness—
M +, or M —.
Pain in: I. A.
- LARYNGISMUS STRIDULUS—
M +.
- MEGALOCHEIROUS—
M —.
- MUSCLES, Atrophy—
M —.
Paralysis: M —.
Hypertrophy: N +.
- MUSCULAR CRAMPS—
M +.
- MYOCARDITIS—
C +.

MYOCLONIA—

M +.

NAILS—

Diseases of: O +, or O —.

Deformity of: O +, I. A.

NEURALGIA—

No Equation.

ONYCHIA—

Typical equation: C +.

Clinical equation would be: N. C. R.

PALSIES—

M +.

RHEUMATISM—

No equation.

ROSE COLD—

C +, E —.

Typical equation: C +, E —.

Clinically it might be NCR in addition.

STERNUM—

Diseases of: O +, or O —.

SWELLING—

Following excessive heat: C +.

Dropsical condition: C +, E —, or T +, E —.

Following expansion: X +.

THRILLS—

M +.

THORAX—

See Lu P. This might be involved but a higher zone.

TRACHEA—

Displacement of: M —, or M +.

If displacement due to paralysis: M —.

If displaced by contraction: M +.

TRACHEAL TUGGING—

TUBERCULOSIS—

C +, E —, for typical case.

Clinically, it is possible that it might be N. C. R. in addition.

TUMORS—

X +.

VERRUCA—

X +.

WRIST—

Drop: M —.

WRITER'S CRAMP—

M +.

SECOND, THIRD, FOURTH DORSAL.

ABSCESSES—
NCR.

ACNE—
NCR, E —.

AFFECTIONS of the Lung—
O +, E —.

ANEURISM of aorta—
M —.

ATELECTASIS—
M —.

BLEEDING—
M —.

BRADYCARDIA—
M —.

BREAST—
Hysterical: O +, or O — in the brain.
Tumors of: X +.
Cancers of: NCR.
Lack of lacteal secretion: T —.
Excretion or development of during or following pregnancy:
E +, or E —.
Pains in: I. A.

BREAST—
Swelling of: X +, C +, or T +, E —.
Abscess of: NCR.

BREATHING—
Difficult: M —.
Rapid: M +.
Painful: I. A.

BREAST BONE—
Pain of: I. A.

CARPO—
Pedal Spasm: M +.

CARDIO—
Pulmonary murmur of: M +, or M —.

CAVITIES in lungs—
NCR.

CHAPS—
E —.

CHEST—

Barrel shaped: X +, or X —, C +, I. A.

Deformities of: X +, or X —, C +, I. A.

Pain of: I. A.

Chicken breast same.

Deformities of.

Also Pigeon Breast and Funnel Chest: X +, or X —, C +.

I. A.

Dropsy of: T +, E —.

CHRONIC—

Lung fever: C +, in the chronic stage NCR.

COLD—

C +.

COMA—

I. A.

COUGH—

Lung, such as tuberculosis. T —, C +.

CREPITANT RALE—

T —, C +.

DEXIO CARDIA—

M +, or M —.

DILATATION OF HEART—

M —.

DISEASES—

Of lungs: O +, or O —.

DISEASES—

Of chest: O +, or O —.

DROPSY—

Hydrothorax: T +, E —.

DROPSY—

Oedema: T +, E —.

DRYING—

Of milk in breasts: T —, C +.

DULLNESS—

Over lungs.

No equation.

DYSPNŒA—

Lungs: M —.

EMPHYSEMA—

N —.

EMPHYSEMA—

NCR.

ENDOCARDITIS—

C +.

ENLARGEMENT—

Of the heart: X +, C +, or T +, E —.

EXPANSION—

Chest: X +. Deficient respiration: M —. Excess respiratory: M +.

EXPIRATION—

Prolonged: M +.

FATTY HEART—

X +.

GANGRENE of Lung—

NCR.

GLAND, Mammary—

Tuberculosis of: NCR, in typical case.

Might be, clinically, NCR in addition.

Cancers of: NCR.

Tumors: X +.

HÆMOPERICARDIUM—

M —.

HÆMOTHORAX—

M —.

HÆMOPTYSIS—

I. A.

HEMORRHAGE—

M —.

HEMORRHAGIC—

Pericarditis: M —, C +.

HOARSENESS—

C +, T —, is the condition which induces hoarseness.

Hoarseness is a condition.

HYDATIDS of lungs—

T +.

HYDROTHORAX—

T +, E —.

INFLAMMATION—

Of the lungs: C +.

INTERCOSTAL—

No Equation.

INTERCOSTAL SPACES—

If bulging or retraction of: M +, or M —.

LOBAR PNEUMONIA—

C +.

In this equation C + may have as a combination anything else you can imagine.

LACTATION—

Lack of: T —.

Excess of: T +.

Other diseases of O +, or O —.

LUNGS—

Abscess of: N. C. R.
Hydatids of: T +.
Gangrene of: NCR.
Growths in: X +.
Military Tuberculosis of: NCR.
Diseases of: O +, or O —.
Pain of: I. A.
Phythisis of: NCR.
Syphilis of: NCR.

HEMORRHAGES from—

M —.
Lung stones: C +.

MASTOIDITIS—

C +.

MASTALGIA—

I. A.

MASTATROPHIA—

N —.

MASTODYNIA—

I. A.

MEDIASTINAL ABSCESS—

NCR.
Inflammation of: C +.
Tumors: X +.

MEDIASTINO PERICARDITIS—

C +.

MEDIASTINUM—

Any disease of: O +, or O —.

MEGALOCARDIA—

X +, C +, T +, E —.

MILK FEVER—

C +.

MITRAL—

Incompetency: M —, M +.
Stenosis: M +.

MURMURS—

Abnormal of heart: M +.

MYOIDEMA—Of lungs: I. A.

NEURALGIA—

See General Diseases, mammary and intercostal if of a superior zone. See also At. P., MCP., U. A. P., A. P., C. P., Spl. P., U. P. P., P. P., L. P. P.

NIPPLE—

Diseases of: O +, or O —.

OPPRESSION—

Chest: X+, or X —, I. A.

In addition could be C +.

ORGANIC HEART DISEASE—

O +, or O —.

ORGANS OF RESPIRATION—

diseases of: O +, or O —.

ORTHOPNOEA—

I. A.

PALPITATION OF HEART—

M +, or I. A.

PECTORILOQUY—

I. A.

PERICARDIAL CAVITY—

M —.

N. C. R. might do it.

PERICARDITIS—

C +.

Hemorrhage: N —, C —.

Purulent: N. C. R., C +.

PERICARDIUM—

Diseases of: O +, or O —.

Tuberculosis of: NCR.

PETHISICAL CHEST—

M +, or M —.

PHTHISIS—

C +, E —, or NCR.

PIGEON BREAST—

X +, or X —. C +, or C +. I. A.

PLEURA—

Disease of: O +, or O —.

Hydatids of: T +, E —.

New growth of: I. A.

Tuberculosis of: NCR.

PLEURAL and pleuro-pericardial friction—

C +.

PLEURAL effusions—

M —.

PLEURISY—

C +.

Hemorrhagic: C +, M —.

Purulent: NCR.

Tuberculosis: C +, E —, NCR.

PLEURODYNIA—

I. A.

PLEURO-PNEUMONIA—

C +.

PNEUMONIA—

C +.

PNEUMOPERICARDIUM—

M —.

PNEUMOTHORAX—

M —.

PULMONARY ATELECTASIS—

M —.

PULMONARY INCOMPETENCE—

M —.

PULMONARY STENOSIS—

M + or M —.

PULMONARY CONSUMPTION—

C +, E —.

PULSE—

Decreased frequency of: M —.

Increased frequency: M +.

Stenosis: M +.

Aneurism: M —.

PUS—

In the chest: NCR.

PYOPNEUMOTHORAX—

NCR.

QUALITY OF MOTHER'S MILK—

O +, or O —.

REGURGITATION—

M —.

RESONANCE—

C +.

RESPIRATION—

Sighing: I. A.

RESPIRATORY EXPANSION—

M —.

RESPIRATORY SYSTEM—

O +, or O —.

SHINGLES—

NCR and A.

SIGHING—

M +, or M —.

SMOTHERING—

M +, or M —.

SORE NIPPLES—

O +, or O —.

SPUTUM—

NCR.

STENOCARDIA—

N —.

STENOSIS—

M +.

STENOSIS—

Pulmonary. See also M. C. P. S. P.

STERNUM—

O +, or O —.

STREPTOCOCCUS PNEUMONIA—

I. A.

SYSTOLE—

M —.

TACHYACARDIA—

M +.

TENDERNESS—

I. A.

THORAX—

General diseases of: O +. Bilateral deformities of: X +,
C + and I. A.

Oedema of: T +, E —.

Tenderness of: I. A.

Unilateral contraction of: M +.

Unilateral deformities of: M +, or M —, C + and I. A.

TRICUSPID INCOMPETENCY—

M —.

TUBERCULOSIS—

NCR.

TUMORS—

X +.

ULNA—

Swelling or nodes of: C +, or X +, or T +, E —.

Osteomalacia of: C +.

Disease of: O +, or O —.

VALVES—

Abnormalities of: O +, or O —.

VALVULAR LESIONS—

M —.

VENTRICLE—

Hypertrophy of: X +.

FOURTH, FIFTH DORSAL. Li. P.

ABSCESS of liver—

NCR. E —.

ACUTE or chronic inflammation of the liver—

C +.

BILE DUCT—

Impacted gallstones in: C +.

Stricture of: M +.

Inflammation of: C +.

Prolapsis of: M —.

Cystic of: T +, E —.

Acute catarrh of: NCR.

Chronic catarrh: NCR.

Stenosis of: M +.

Obstruction of: M —.

Suppuration of: NCR.

BILIOUSNESS—

E —, I. A.

BILIOUS—

E —.

COLIC—

I. A.

BILIOUS FEVER.

E —, C +.

BILIOUS HEADACHE—

I. A.

CARCINOMA of gall bladder—

NCR.

CATARRH of liver—

NCR.

The difference between carcinoma and catarrh, both having the same equation, is a matter of degree in pressures.

CHOLANGITIS—

C +.

CHOLELITHIASIS—

C +.

CHRONIC—

Inflammation of the liver: C +.

CIRRHOSIS of the liver—

C +, I. A.

CLAY-COLORED STOOLS—

T —.

COLIC—

X +, I. A.

DISEASES—

Of the liver: O —.

DROPSY—

T +, E —.

EMPYEMA—

NCR.

FUNNEL CHEST—

X +, or X —, C +, I. A.

GALL BLADDER—

Acute or chronic: C +.

Carcinoma of: NCR.

Dropsy of: T +, E —.

Empyema of: NCR.

Pain of: I. A.

Gall stones: C +.

All diseases of: O +, or O —.

GALL STONES—

C +.

GIN LIVER—

I. A.

GREEN STOOLS—

T —, I. A.

HÆMOTHORAX—

M —.

HEPATOPTOSIS—

M +, or M —.

HYDRATID TUMORS—

T +, E —.

HYDROTHORAX—

E +, E —.

ICTERUS—

T +, E —.

INTERCOSTAL SPACES—

If lower zone than Lu. P.

See also Lu. P. C. P. S. P. and Spl. P.

JAUNDICE—

T +, E —.

LIVER—

Abnormal consistence or roughness of: X +, or X —.

Abscess of: NCR.

Acute inflammation of: C +.

Atrophy of: N —.

Carcinoma of: NCR.

Cirrhosis of: T +, I. A.

Enlargement of: X +, C +, or T +, E —.

Fatty: X +.

Hyperæmia: M +.

Irregular shape of: X +, or X —.

Irregular shape of may depend upon pathological condition.

If so, O +, or O —.

Irregular shape of may depend upon the abnormal shape in development. If so, X +, or X —.

Movable or floating: M —.

Pain of: I. A.

Syphilis of: NCR.

Tuberculosis of: C +, E —.

LIVER—

Pains over. The zone would still remain the same; therefore the adjustment for a region "over" would still be the same.

OBSTRUCTION—

Gallstones in gall duct. See also A. P. and Spl. P.

PASSAGE OF GALLSTONES—

Difficult, "painful."

PERIHEPATITIS—

C +.

PLEURODYNIA—

I. A.

SPLANCHNOPTOSIS—

M —.

SPLEEN AND LIVER—

Enlargement of: N +, or C +, or T +, E —.

TUBERCULOSIS—

NCR.

ACNE—

NCR, E —.

ANÆMIA—

N —.

Anæmia in its functions is equivalent to atrophy.

ANASARCA—

T +, E —.

ASTHMATIC PARALYSIS—

M —.

ATAXIA—

N —, R —, S +, M —.

ATHEOSIS—

M +.

ATROPHY—

N —.

BLACKWARDS—

T —, C +.

CHILLS—

Chills are of three classes; that chill characteristic of rapid oscillation of superficial tissue having an object of resisting external conditions. This would be I. A.

Second, the chill wherein there is a more or less rapid and peristaltic movement of superficial muscles all over the body. In

this condition: M +, because the temperature of the body would be normal. Third, the chill wherein the body is cool. Not necessary to have contractions or relaxations at that time. That would be C —. Each one of these chills can be deducted by watching your patient. Many a person has a chill and yet you ask him to define what that chill is and if he analyzes it carefully he will tell you it was a contraction of muscles all over his body.

CHLOASMA—

Wherever the question of time enters in the expansion or disposition of cells in the same place there is bound to be a difference in the quantity or quality of the color. For instance, take this femur. It was built, we will say, fifteen years ago. Now, at that time a certain amount of pigment material was coming forward and being deposited into every cell that was being added, consequently pigmentation and expansion were two simultaneous conditions. Consequently this femur assumes a certain color at the age of fifteen years. After being expanded a fracture takes place. Now, the characteristic kind of tissue cells that come forward to heal that are going to be a pigment color fifteen years later. The result is a difference in color that comes forward to heal that fracture in the building of the bone. That is why in skin grafting, for instance, you will always find the new cells coming forward will be a different color because it is assuming a different quality of pigment at a later period of time.

CONSTITUTIONAL DISEASES—

O +, or O —.

CONVULSIONS—

M +.

CRAMPS—

M +.

Now, right here I want to draw a distinction. The only difference between convulsions and cramps is one in name. A convulsion is a cramp and a cramp is a convulsion with the exception that a convulsion is that of contraction and a relaxation repeatedly following each other, whereas a cramp is a contraction remaining permanently. The equation is the same, fundamentally.

CROSSED PARALYSIS—

No Equation.

DEBILES—

M —.

DECREASED MOBILITY—

M —.

PREGNANCY—

DIPLEGIA—

M —.

Diplegia implying paralysis of both sides. Hemiplegia, paralysis of left or right side.

DROPSY—

T +, E —.

DROPSY—

Arachnoid: T +, E —.

DROPSY—

Hydrarthrosis: Same.

DURA MATER—

C +.

DYSTROPHIES—

N +, or N —.

ELEPHANTIASIS—

X +.

ERUPTIONS—

NCR, typically. Clinically, we might add E +, or E —.

FACIAL PARALYSIS—

M —.

GOUT IN BACK—

Misnomer.

GOUT—

Where universally general adjust C. P. in combination with K. P.

HEAT RASH—

Rash in itself might imply NCR, or rash might imply I. A. Heat Rash might imply also I. A. Pathologically it would imply NCR. and E —. For instance, many a patient goes to a Doctor, receives a prescription, and in a few hours or a day or two the skin becomes covered with a rash which might be a heat rash or might not, according to the character of the material which Innate Intelligence is trying to I. A. throw out.

HEMIANESTHESIA—

S —.

HEMIPLEGIA—

M —.

HEMORRHAGE—

M —.

Now, we find Hemiplegia and Hemorrhage appearing together, the equation being the same. In one we have the absence of a specific function over a large area and affecting the muscles in large degree and have for their function the moving of large portions. In the other we have the affecting of a specific few small fibres of muscles in and around an artery or a vein, thus an absence of M at that particular place brings on a limited amount of motion, consequently the effects are modified, owing purely to the quantity of material involved and the location of that quantity.

HYPERSECRETION—

T +.

HYPERTROPHY—

N +.

IMMOBILITY—

M —.

INFLUENZA—

NCR.

INTERCOSTAL SPACES—

If a lower zone than Li P. See Lu. P. Li. P. S. P. and Spl P.

LICE—

I. A.

MENINGITIS—

C +.

MENINGITIS—

External or internal spinal. See At. P.

MENINGOCELE—

Meningocele implying a prolapsus of the meninges of the spinal cord and if we carry that no farther would imply M —, but if the condition behind that is typical spina bifida, than X —.

MENINGO-HYELITIS—

C +.

“NERVOUS” Prostration—

See M. C. P.

“NEURALGIA”—

Intercostal of an intermediate zone.

See also At. P.

M. C. P.

U. A. P.

A. P.

Lu P.

Spl P.

U. P. P.

P. P.

L. P. P.

OBESITY—

T +, Y +, N +, or X +.

Any one or more could make a combination.

PARALYSIS—

M —.

PARAMYOCLONUS MULTIPLEX—

EX: M +.

PIA MATER—

Spinal, acute or chronic, inflammation of: C +.

PLEURODYNIA—

I. A.

POLIOMYELITIS—

C +.

POSTULE—

NCR.

RACHITIS—

C +, X +, I. A.

“RHEUMATISM”—

General, of any character.

See General Diseases, also

U. A. P.

A. P.

S. P.

K. P.

U. P. P.

P. P.

L. P. P.

SCARLET FEVER—

Typically: C +.

Clinically, any combination that any physician would wish to observe.

SEBORRHOEA—

T —.

SKIN—

Where abnormal generally in color: T +.

Emphysema of: M —.

Hemorrhage of: M —.

Serodema of: T +.

Excessive moisture: T +.

Lack of moisture: T —, or E +.

SPINAL MENINGES—

C +.

TENDERNESS, of dorsal of back—

I. A.

TUBERCULOSIS—

NCR.

TYPHOID FEVER—

NCR.

Typically, C +.

Clinically, anything a physician might care to observe.

FIFTH, SIXTH, SEVENTH DORSAL S. P.

ACHYLIA GASTRICA—

T +, or T —.

ACNE—

NCR.

ACUTE CATARRH—

NCR.

ADENOIDS of larynx—

X +.

AFFECTION of the larynx—

O +, or O —.

AGEUSIA—

Diminution or loss of taste: B —.

ANACHONCHYLISM—

Clinically: I. A.

Pathologically: M +.

ANARTHRIA—

Stammering: M +.

ANGINA—

Of any part of esophagus: I. A.

ANISOCORIA—

O +, or O —.

ANOREXIA—

I. A.

APHASIA—

See loss of speech: M —.

APHTHÆ—

NCR.

ABNORMALITIES OF APPETITE—

O +, or O —, or I. A.

It is a question whether in a case of pregnancy the appetite for vinegar, whiskey, wine or tobacco would be considered abnormal appetite. I believe where there is a persistent craving for anything, even as incongruous as I have stated, that that appetite would be normal and should be appeased even though it be contrary to our ideas of living.

APPETITE—

Voracious: Same as above.

BAD TASTES—

O +, or O — I. A.

BALDNESS—

N —, T +, or minus.

You will always find a scalp is either wet or dry and a lack of nutrition being the basis. Usually scalp is dry and hard.

BELCHING OF GAS FROM STOMACH—

BELCHING of gases from stomach—

I. A.

BILIOUSNESS—

I. A.

BILIOUS HEADACHES—

I. A.

BLEEDING—

M —.

BUCCAL CAVITY—

Eruptions, ulcers in: NCR.

Petechial and pigmented spots in: T +.

Cold sores in: NCR.

Inflamed mucous membrane of: C +.

BOULIMIA—

CANCER of stomach—

NCR.

CANKER, sore mouth—NCR.

Carcinoma of stomach: NCR.

CARPO—

Pedal spasm: M +.

CATARRH of buccal cavity—

NCR.

CESTODES—

Stomach: I. A.

CHILD GROWING—

M +.

CHOKING ATTACKS—

M +.

CLERGYMEN'S sore throat—

C +.

O +, or O —.

If sore throat: NCR.

CONTRACTURES of muscles of stomach on left or throat on right: M +.

CORNEA—

Affections of: O +, or O —.

Ulcers of: NCR.

COUGH—

I. A.

Whooping Cough: M +.

CRAMPS—

M +.

CROUP—

T —.

DANDRUFF—

NCR, E —.

DILATATION—

Of the stomach: M —.

DIPHThEROID—

Sore throat on right side: NCR.

DIPHThERIA—

C +, NCR.

DIPHThERITIC MEMBRANE—

NCR and X +.

DIPLOPIA—

M +.

DISEASES—

Of the digestive system: O +, or O —.

DISEASES—

Of the stomach: O +, or O —.

DISEASES—

Of the throat: O +, or O —.

DIZZINESS—

I. A.

DIPSOMANIA—

O +, or O —.

DROPSY—

T +, E —.

DYSPEPSIA—

O +, or O —.

DYSPEAGIA—

M —.

DYSTROPHIES—

N +, or N —.

ELEPHANTIASIS—

X +.

ENLARGEMENT—

Of the tonsils: X +, C +, or T +, E —.

ERUCTATIONS—

Adjust to left side: I. A.

ESOPHAGUS—

Acute or chronic inflammation: C +.

Cancer: NCR.

Dilatation: M —.

Rupture: M —.

Spasms: M +.

Stricture: M + C + or X + or T + E —.

Ulcerations of: NCR.

EXOPHTHALMIC GOITRE—

X +.

EXOPHTHALMOS—

M +.

In justice to the opinions of everyone studying this, as a matter of self-defense of my own ideas, I have perhaps given more study and more thought to the elucidation of the problems of man than any of you students, especially along the lines of the failures

of others and the successes of ourselves. Now, there is no doubt but what we are making successes where others have failed, and in order to do this we must have a working basis, commonly called art. Art is based upon science and science is again based upon an object, and the object usually philosophically. If we accomplish results with our philosophy as nothing else has done, then it seems to be correct.

Then in the theory we held out yesterday in gastric neurosis or neurosis of any nerve. Now, it may be possible, I am granting that I might be wrong in my observations here, but I really feel that if you had given the amount of study to the question of neuralgia that I have done both for and against my own ideas and for and against the ideas and theories advanced by medical reasoners, I am sure that you would place a great deal of credence in the theory advanced. For instance, in the library I have upstairs are a great many works on neuralgia. I have these books for the purpose of finding out what is known medically upon this subject. I want to know from a matter of principle what they say, how they say it and for what reason they say it. Then when you get their matter of theory and get it with the matter of practice and you find that the two *confute* each other, one for the other and the other for the one, and that one does not hold good in theory or in practice, and the two do not link, there certainly is something wrong somewhere, so it hardly seems fair to question the statement until you have taken the same line of reasoning and carried it equally as far as I have carried it. I do not mean to say that in a point of spirit that you haven't a right to think. On the reverse, I am glad to see you think, but I do feel that you ought not to think from a reasoning standpoint and accept as a fact until you have looked at it from a broad standpoint.

Now, we have been giving from time to time observations in Dr. Morat for the purpose of showing you that there has been questioning on these ideas. Dr. Morat questions the fact of the optic nerve passing direct from the eye to the brain; questions that most severely. Several places he has questioned the entire path of the cranial nerves, and if Dr. Morat sees fit to question these points, then certainly we have a right to question them a little farther, having knowledge which he has not, so think all you will; but try and view these things from the broad standpoint. I am not asking you always while in school to accept everything given to you by any means, because if made of the right material and you go out into the field and begin to practice you will realize there is a great deal more in it than you had thought. So when you go out into the field and begin to meet troubles which you are bound to face, then when you begin to apply some point of logic to the clinical cases you get, you will find there is something in it.

Now, gastric neurosis is a question of which there is a great deal of discussion. Neurosis is one of those unexplainable problems that a medical man faces when he has not any other explanation to offer.

EYE—

Crossed, protrusion of. See also M. C. P. and K. P.

EYEBALL—

EYESTRAIN—

Irregular or spasmodic movements of.

GAS—

Of stomach. See also P. P.

GAS—

On the stomach.

GASTRALGIA—

GASTRIC JUICE—

See Spl. P.

GASTRIC NEUROSIS—

C +.

GASTRITIS—

C +.

GASTRO—

Duodenitis: C +.

The difference between Gastritis and Gastro Duodenitis is one of location. In Gastritis we have an inflammation of a portion of the mucous membrane lining the stomach. In Gastro-Duodenitis we have an inflammation of a portion of the mucous membrane of the stomach and the inflammation of a portion of the mucous membrane of the Duodenum. The difference of location makes a difference in name, the equation being the same.

GASTRODYNIA—

I. A.

GASTROPTOSIS—

M —.

GLAND—

Tumors of the thyroid: X +.

Diseases of: O + or O —.

GLOSSITIS—

C +.

The equation for Glossitis and Gastritis is the degree involved of heat in excessive quantities. Difference in location making a difference in the name.

GOITER—

X +.

GRAVE'S DISEASE—

X +.

GULLET—

Stricture of: C + or X + T + or minus.

HÆMATEMESIS—

M —.

HAIR—

Absence of color: T —.

Loss of: X — NCR.

HEADACHE—

I. A.

HABIT—

Morphine: I. A.

HEARTBURN—

A misnomer.

HEMORRHAGE—

M —.

HERPES—

NCR E +.

HETEROPHORIA—

M —.

HICCOUGH—

I. A. Anything that can be pathologically changed plus or minus, could be and sometimes is, an adaptative feature. Pathologically the symptom we observe will be O + or O —. Hiccoughs could be I. A. or can be M +.

HIPPIUS—

M +.

HOARSENESS—

T —.

HYPERÆSTHESIA—

S +.

HYPERSECRETION—

T +.

INFARCTION—

M —.

INDIGESTION—

O + or O —.

INFLAMMATION—

Of the stomach: C +.

INTERCOSTAL SPACES—

If a lower zone than C. P. See also Lu. P.

Li. P.

C. P.

Spl. P.

LARYNGEAL PARALYSIS—

M —.

LARYNX—

Affections of: O + or O —.

Catarrh of: NCR.

Tumors of: X +.

MOTOR POWER OF STOMACH—

Passing out left side of S. P., proceeding in a circling manner to stomach.

LIPS—

Foam on:

If of poisonous origin: I. A.

If not: M +.

Herpes: NCR.

Fissures: NCR.

Chancre: NCR.

Epithelioma: NCR.

Swelling of: X +. C + T + E —.

Twitching: M +.

LOSS OF SPEECH—

Voice: O + or O —.

MEGALOGLOSSIA—

X —.

MEMBRANE—

Mucous of: Digestive tract superior to pylorus of stomach, NCR.

METALLIC VOICE—

O + or O —.

MONOPLEGIA—

M —.

MORNING SICKNESS—

No Equation.

MORPHINE HABIT—

I. A.

MOUTH—

Disease of: O + or O —.

Bitter taste in: T +.

Soreness inside: NCR.

Tumors of: X +.

Foaming from: M +.

Bleeding from: M —.

MUCUS—

In gastric contents.

MUSCLES—

Ocular atrophy: N —.

Hypertrophy: N +.

Paralysis of: N —.

MUSCULAR CRAMPS—

M +.

MUTISISM—

M —.

NERVOUS Dyspepsia—

Misnomer.

NERVOUS eructations—
Misnomer.

NERVOUS vomiting—
Misnomer.

NYSTAGMUS—
M + or M —.

OCULAR MUSCLES—
M —.

OCULO MOTOR PARALYSIS—
M —.

ODOR OF BREATH—
I. A.
Conditions might make the odor O + or O —.

OMENTUM—
Gastric, Omentum majus, prolapsis of: N —.
Dropsy: T + E —.

OPHTHALMOPLEGIA—
M —.

OPPRESSION—
Stomach: M —.

PAIN IN STOMACH—
I. A.

PALATE—
Anæsthesia: S —.

PARALYSIS—
Of vocal cords: M —.
Diphtheritic: NCR.
Laryngeal: M —.

PAROTID GLAND—
Tumors: X +.

PAROTITIS—
C +.

PARROTT'S ULCERS of hard palate—
NCR.

PEPSIN—
Absence of: T —.
Excess of: T +.

PERIODIC VOMITING—
I. A. or O + or minus.

PERISTALTIC UNREST—
M + or M —.

PERTUSSIS—
M + or I. A.

PHARYNGITIS—
C +.

PHARYNX—

Adenoids of: X +.

Retropharyngeal abscess of: NCR.

Ulcers in: NCR.

The only difference between the words abscess and ulcer is in letters.

PHLEGMONOUS-GASTRITIS—

C + NCR.

PNEUMOTOSIS—

Of stomach: M —.

PYLORUS—

Hypertrophic stenosis of: N +, X +.

Incompetency of: M —.

Spasm of: M +.

PYROSIS—

Misnomer.

QUINSY—

NCR.

RASPBERRY TONGUE—

T +.

REGURGITATION—

Of food: M —.

RETINITIS—

One or both eyes: C +.

RETROPHARYNGEAL ABSCESS—

NCR.

SALIVARY GLANDS—

O + or O —.

SALIVATION—

C +.

SORE THROAT—

Clergyman's: C + and possibly N — and R —.

Diphtheria: NCR.

Laryngitis: C +.

Tonsillitis: C +. May also be NCR.

SPLANCHNOPTOSIS—

Stomach: M —.

SPUTUM—

NCR.

STENOSIS—

Pyloric: M +.

STOMACH—

Cancer of: NCR.
 Dilatation of: M —.
 Neurosis: Misnomer.
 Excessive acidity of: T +.
 Excessive alkalies of: T +.
 Mucus in: NCR.
 Excessive Contraction of: M +.
 Inflammation of: C +.
 Pain of: I. A.
 Prolapse of: M —.
 Abnormal relaxation of: M —.
 Spasm of: M +.
 Tumor of: X +.
 Gastritis of: C +.
 Ulcer of: NCR.
 Indigestion: O + or O —.
 Dyspepsia: C + or C —.
 Burning in pit of: C +.
 Fullness of: X + C + T + E —.
 Gnawing of pain: I. A.
 Splashing feelings from: M +.
 Tenderness over: I. A.

STOMACH DISORDERS of—

O + or O —.
 Cough: I. A. or M +.

STOMATITIS—

C +.
 Follicular: NCR.
 Catarrhal: NCR.
 Ganglenous: NCR.
 Ulcerative: NCR.
 Uræmic: T + E —.

STRABISMUS—

M + or M —.

STUTTERING—

M +.

STAMMERING—

M +.

SUPPURATIVE GASTRITIS—

NCR.

SUPPURATIVE TONSILITIS—

NCR.

SWALLOWING—

Difficulty in: M + or M —.

TAPEWORM—

I. A.

TASTE—

O + or O —, for disorders of.
Impressions of: I. A.

THIRST—

I. A.

THROAT—

Tickling of: S +.
Soreness of: NCR. I. A.
Ulcers of: NCR.
Inflammation of: C +.

THRUSH—

NCR.

THYROID GLAND—

Disease of: O + or O —.
Enlargement of: X + C + T + E —.
Atrophy of: N —.

TONGUE—

Atrophy of: N —.
Beefy: X +.
Tie: X +.
Excessive color of: T +.
Lack or excessive pigmentation of: T + E —.
Eczema of: NCR.
Enlargement of: X + C + T + E —.
Leucoplakia of: NCR.
Psoriasis of: NCR.
Smoker's: I. A.
Patch: NCR.
Raspberry: T +.
Strawberry of: T +.
Biting of: M +.
Coated or dryness of: T —.

TONSIL—

Inflammation: C +.
Enlargement: X + C + T + E —.
White spots on: NCR.
Other diseases of: O +¹ or O —.

TUBERCULOSIS—

NCR.

TUMORS—

X +.

ULCER —

Of stomach: NCR.

ULCER—

Of cornea or pharynx: NCR.

UVULA—

Swelling of: $X + C + T + E -$.Inflammation of: $C +$.Other diseases of: $O +$ or $O -$.

VERTIGO—

I. A.

VISION—

Double: $M +$ or $M -$.Strabismus: $M +$ or $M -$.

VOCAL CHORDS—

Paralysis of: $M -$.Atrophy of: $N -$.Hypertrophy of: $N +$.

VOCAL FREMITUS—

Increase of: $M +$.Absence of: $M -$.

VOICE—

Hoarseness of: $C +$ typically, or $T -$.

Huskiess: Same.

Loss of: $M -$.Weakness of: $M -$.

VOMITING—

I. A.

VOMITUS—

Character and amount of—green and yellow—parasites in:

I. A.

Color bloody, coffee ground like: NCR.

Pus in: NCR.

WATER—

Brash: I. A.

WHITE—

Spots in throat: NCR.

WHOOPIING COUGH—

NCR followed by I. A.

XEROSTOMIA—

T —.

SEVENTH, EIGHTH, NINTH DORSAL—Spl. P.

ACNE—

NCR.

AGUE—

 $M + C +$.

BREATHING—

Jerky: M + or M —.

Stertorous: M + or M —.

Stridulous: M + or M —.

Wavy: M + or M —.

Irregularity of: M + or M —.

Spasmodic action of: M + or M —.

The only difference between the various terms used here is purely at the discretion of the person observing the breathing. They are all the same.

CALCULI OF PANCREAS—

C +.

CATARRH—

Of spleen, of intestines: NCR.

CHILD CROWING—

M +.

CHRONIC—

Inflammation of spleen: C +.

COUGH—

I. A.

CYST—

A cyst is purely any membranous sack that has been raised either pathologically or adaptatively with the purpose of circumventing some condition. A cyst is always abnormal. Always pathological unless in an instance like I spoke of a blister, and that is purely adaptative, so that for a cyst your equation would be T + E —., or I. A.

DIAPHRAGM—

Paralysis of: M —.

DIAPHRAGMATIC HERNIA—

M —. The difference between the two conditions having the same equation in that one covers a broad area and the other covers a specific area. In paralysis of the diaphragm you have a hernia of the entire diaphragm. The entire diaphragm will prolapse. In a diaphragmatic hernia you have a specific localized area that prolapses.

DISEASES—

Of spleen: O + or O —.

DISEASES—

Of intestines: O + or O —.

DULLNESS—

Over spleen: S —.

DUODENAL ULCER—

NCR.

GASTRIC-JUICE—

Acidity of; quality of: Is determined by the condition of this gland.

GASTRO—

Duodonitis: C +.

GLAND—

Thymus: diseases of: O + or O —.

HERNIA—

Diaphragmatic: M —.

HICCOUGHS—

I. A. or H +.

HYPERSECRETION—

T +.

HYPERTROPHY—

N +.

INFRACTION—

M —.

INTERCOSTAL SPACES—

If a lower zone than S. P. See Also:

Lu. P.

Li. P.

C. P.

S. P.

INTESTINAL OBSTRUCTIONS—

I. A. for worms.

INTESTINES—

Acute obstruction of: X + M + T + or E —.

Inasmuch as M + could be acute as in cramps, X + could be acute as in rapidly formed tumor; T + O — could be acute as in the mucous membrane of the intestines.

Carcinoma of: NCR.

Diminished sensibility of: S —.

Neurosis of: Misnomer.

Strangulation of: M +.

Ulceration of: NCR.

Ulcers: NCR.

Diseases of: O + or O —.

Structures of: M + X + or T + E —.

Pain of: I. A.

Tuberculosis of: NCR.

INTESTINAL hemorrhage—

M —.

Perforation: M —.

Ulcers of: NCR.

LIENTERY—

We might say T — in stomach or intestines and T + in kidneys and maybe in bowels.

INTUSSUSCEPTION—

Of the intestines: M + or M —.

On the ground that one part might relax a little the contracted portion to go into it, or another part might contract greater than a normal contraction and enter into the normally contracted portion.

MEGALOCÆLIA—

C + or X + or T + E —.

MEMBRANE—

Mucus of intestines. See also:

At. P.

M. C. P.

S. P.

P. P. and general diseases.

METEORISM—

C +.

NEURALGIA—

See General Diseases: intercostal of an inferior zone.

See also:

At. P.

M. C. P.

P. P.

L. P. P.

OBSTRUCTION—

Intestinal, from stricture: X + T + or E — C +.

Tumor: X +.

Impacted feces: T — or C +.

Paresis of muscular walls: M —.

OMENTUM—

Cordlike: M +.

Prolapsis of: M —.

Dropsy of: T + E —.

PANCREAS—

Carcinoma of: N —.

Cyst of: I. A. or T —.

Diseases of: O + or O —.

Hemorrhages into: M —.

Pain of: I. A.

Calculi of: C +.

PANCREATITIS—

Acute or chronic: C +.

Gangrenous: NCR.

Hemorrhagic: N — C +.

Suppurative: NCR.

PARALYSIS—

Of diaphragm: M —.

PIN WORM—

I. A.

RESPIRATION, absent—

Diaphragmatic: M —.

Harsh: M + or M —.

Jerking: M +.

Stertorous: M +.

Abnormal frequency of: M +.

Stridulous: M + or M —.

Simple irregularity of: M + or M —.

SPLANCHNOPTOSIS—

M —.

SPLENOTOSIS—

M —.

SPLEEN AND LIVER—

Combined enlargement of: X + or C + or T + or E —.

SPLEEN—

Enlargement of: Same as above.

Displacement of: M —.

Enlarged: X + or C + or T + or E —.

Abscess of: NCR.

Growths of: X +.

Pain of: I. A.

Rupture of: M —.

Tuberculosis of: NCR.

TAPEWORM—

I. A.

THREAD WORMS—

I. A.

TUBERCULOSIS—

ULCERS—

Of intestines: NCR.

ULCER—

NCR.

UMBILICUS—

Hernia through: M —

VATER—

Diseases of: O + or O —.

VOLVULUS—

Intussusception: M + or M —.

TENTH, ELEVENTH, TWELFTH DORSAL—K. P.

ACUTE BRIGHT'S DISEASE—

You have a lack of normal transformation from serum or urea to urine and a lack of proper urination. The quality of urine is small: T — E —.

ADDISON'S DISEASE—

T +.

ANASARCA—

T + E —.

ANY DISEASE of the adrenals—

O + or O —.

ALBUMINURIA—

T +.

ALL KINDS OF ACNE—

NCR E —.

AMYLOID KIDNEYS—

T +.

ANEUROSIS—

For difficulty in passing: M + or M —.

Deficient in quantity: T —.

ASCITES—

T + E —.

Baldness: T + or T — and X —. (See S. P.)

BARBER'S ITCH—

NCR.

BLACKHEADS—

T — C +.

BLEPHARITIS—

C +.

BLEEDING—

M —.

BRICK DUST DEPOSIT IN URINE—.

T +.

BRIGHT'S DISEASE—

T — E —.

Acute: T — E —.

Chronic: T — E —.

CALCULI—

Renal: C +.

CATARACT—

X +.

CHICKEN-POX—

NCR. E — and A.

CHLOASMA—

T + or T —, according to whether in excess quantities or lack of.

CHLOROSIS—

N —.

CHLOERINE—

It might be M +, or in case you have eaten green apples both M + and any combination that would act upon foods that are not properly digested.

CHOLERA INFANTUM—

It might be M +, or in case you have eaten green apples, both M + and any combination that would act upon foods that are not properly digested.

CHRONIC—

Diarrhea: T + E +.

CHYLURIA—

T +.

COLD—

If the term cold is applied to a body that is cold: C —.

If applied in the sense of a raising of mucus then NCR, although this word in itself in that application is a misnomer.

COLIC—

Renal: I. A. or M + and any other combination from which foods would be improperly digested.

COMA—

I. A.

COSTIVENESS OF BOWELS—

T — or might be T — and C +.

CONVULSIONS—

M +.

CYST KIDNEY—

I. A. or T +.

DANDRUFF—

NCR E —.

DIABETES INSIPIDUS—

T + E —.

DIACETURIA—

T +.

DIARRHOEA—

M — T + E +.

DIPSOMANIA—

O + or O —.

DISEASES of Kidneys—

O + or O —.

DISEASE, Addison's—

T +.

DISEASE—

Fish skin: NCR E —.

DISORDERS—

Of urination: O + or O —.

DROPSY—

T + E —.

DROWSINESS—

I. A.

DRY MOUTH—

T +.

DRY TETTER—

NCR E —.

DYSENTERY—

T + E +.

DYSTROPHIES—

N + or N —.

EPIPHRA—

I. A. or T + E +.

EPITHELIOMA OF EYELID—

NCR.

ERUPTIONS—

NCR E + or E —.

ERUPTIVE FEVERS—

NCR.

ERYSIPELAS—

NCR and E + or minus A.

EYE—

Dryness: T —.

Moisture of: T +.

Epithelioma of: NCR.

Swelling and puffiness of: X + or C + or T + E —.

Puffiness of: T + E —.

Verruca upon: NCR E —.

Redness of: T +.

FREQUENCY in urination—

M + or minus T.

Any combination with T + or minus.

As an example, T with M + or T + with M would be equivalent.

GALACTURIA—

O + or — or T +.

GLAUCOMA—

M + or M —.

GLEET—

NCR.

GLOSSY SKIN—

T —.

GLYCOSURIA—

T + C +.

GRAVEL—

C +.

GRANULAR—

Eyelids: NCR.

GUMS—

Sores of: NCR.

Spongy: X —.

HÆMATURIA—

Of kidneys: M —.

HAND—

Excessive sweating of: T +.

HEMORRHAGE—

Renal: M —.

HEAT RASH—

NCR or I. A.

HYDATIDS—

X + T + or I. A.

HYDRENCEPHALOCLE—

T + E —.

HYDROCEPHALUS—

T + E —.

HYDRONEPHROSIS—

T + E —.

HYDROTHORAX—

T + E —.

HYPERSECRETION—

T +.

HYPERTROPHY—

N +.

HYPOCHRONDRIUM—

C + or X + or T + E —.

ICTERUS—

T +.

INFLAMMATION OF SOME LOCAL AREA—

C +.

INSIPIDUS—

Diabetes: T + E +.

INFLUENZA—

NCR.

JAUNDICE—

T + E —.

KIDNEY—

Amyloid: T +.

Congestion of: O + or O —.

Cysts of: T +.

Diseases of: O + or O —.

Enlarged: X + or C + or T + E —.

Abscess of: NCR.

Tuberculosis of: NCR.

Tumors of: X +.

Hydatids of: X + or T +.

Syphilis of: NCR.

Colic of: I. A. or M + and any other combination which interferes with normal digestion.

Stones of: C +.

KIDNEYS—

Inflammation of: C +.

KNEE

Housemaids: I. A. T +.

LACTOSURIA—

T +.

LEAD POISONING—

T — E —.

LICE—

I. A.

LIDS—

Granular: NCR.

LIPACIDURIA—

T +.

LIPURIA—

T +.

LIVER—

Many diseases in combination with: O + or O —.

LOCOMOTOR ATAXIA—

M — N —. R — S +.

MEASLES—

NCR.

MENINGOCELE—

T +.

MOISTURE OF SKIN—

T.

MORBUS CÆRULEUS—

T + or T —.

MOUTH DRYNESS—

In: T —.

MOVABLE or floating kidneys:

M —.

NEPHRITIS—

C +.

NEPHROLITHIASIS—

C +.

NEPHROTOSIS—

M —.

OBESITY—

O+ or O —.

OLIGURIA—

T —.

ORGANS OF EXCRETION—

Of all that are liquids. See General Diseases.

OXALURIA—

T +.

PALLOR OF SKIN—

T — or T + or E —.

PARALYSIS—

Agitans: M +.

PEMPHIGUS—

T +.

PEPTONURIA—

PERINEPHRITIC ABSCESS—

NCR.

PERITONEUM—

Lubrication of. See also:

U. P. P.

P. P.

L. P. P.

PHOSPHATURIA—

T +.

POLYURIA—

T + E +.

PSORIASIS—

NCR E —.

PUSTULE—

NCR.

PYELITIS—

C +.

PYELONEPHROSIS—

NCR.

PYURIA—

NCR.

RACHITIS—

C +.

RASHES—

NCR E —.

REDNESS—

T +.

RENAL DISEASE—

O + or O —.

RENNIN—

T — or T —.

RHEUMATISM—

See General Diseases.

Oftentimes more than one form or kind of incoördination exists with another. When that condition exists with this misnomer then its external appearance changes, in so far as you have two causes bringing in two different effects, which, due to location or character, join into one—one name for two individual symptoms.

K. P. is always in combination with acute or local rheumatism.

See also:

U. A. P.

A. P.

C. P.

S. P.

U. P. P.

P. P.

L. P. P.

RICKETS—

C + I. A.

RUBELLA—

NCR E —.

RUBEOLA—

NCR E —.

SCARLATINA—

NCR and T +.

SCARLET FEVER—

C +.

SEBORRHŒA—

T +.

SEPTICÆMIA—

T — E —.

SEROUS STOOLS—

T +.

SEROUS MENINGITIS—

Spinal: T + C +.

SKIN DRY—

T —.

SMALLPOX—

NCR E — A.

SORDES—

NCR.

SPLANCHNOPTOSIS—

M —.

SQUINT—

T — or NCR.

STONE IN THE KIDNEY—

C +.

STOOL—

If watery: T +.

SUDAMINA—

T + or T —.

SUGAR—

In the urine: T + C +.

SUNSTROKE—

T — E —.

SUMMER COMPLAINT—

M + T +.

SUPRARENAL—CAPSULES—

Tuberculosis of: NCR.

SWEAT—

T + or T —.

SWELLING—

Of hands or arms: X + or C + or T + E —.

Of feet: Same.

THIRST—

I. A. or T + or T —.

TOPHI—

T —.

TUBERCULOSIS—

Of kidneys: NCR.

ULCER—

NCR.

ULCERS—

NCR.

URÆMIA—

T — E —.

URIDROSIS—

E —.

URINE—

T and E or T + or minus or E + or E —.

URINATION—

Frequent: E + I. A.

URINARY ORGANS—

Bleeding from: M —.

URINATION—

Disorders of: O + or O —.

URINE—

Incontinence of: M —.

Retention of: M +.

Sugar in: C + T +.

URTICARIA—

NCR E —.

WATER—

On the brain: T + E —.

FIRST AND SECOND LUMBAR.

ABSCESS—

NCR.

ABDOMINAL MUSCLES—

Prolapsus of: M —.

Atrophy of: N —.

ACNE—

NCR E —.

APHTHÆ—

NCR.

APPENDICITIS—

C +. May result in NCR.

ASCARIS—

I. A.

CARCINOMA—

NCR.

CATARRH—

NCR.

CESTODES—

I. A.

CHILD BED—

Diseases of: O + or O —.

Fever: C +.

CHRONIC—

Peritonitis: C +.

COLITIS—

C +.

COLON—

Dilation of: M —.

CONSTIPATION—

M —.

COSTIVENESS—

T +.

CYST—

T + E —.

DIARRHŒA—

It might be I. A. or T +.

DISORDERS—

Of bowels: O + or O —.

DROPSY—ASCITES—

T + or T + E —.

DROPSY—

T + E —.

DYSMENORRHŒA—

I. A.

INTERALGIA—

I. A.

ENTERITIS—

C +.

ENTERCOLITIS—

C +.

INTEROPTOSIS—

M —.

FÆCES—

Obstruction of: M + or M — or T + E — or C +.

Incontinence of: M —.

Watery stool of: T +.

INTUSSUSCEPTION—

M — or M +.

JOINT—

Stiffness of: T — or C + or M +.

Pain in: I. A.

LEG—

Miscellaneous abnormal signs: O + or O —.

Peripheral palsies of: M +.

Varicose veins of: M —.

LUMBAGO—

Lumbago—S +.

MERALGIA—

I. A.

MOBUS COXÆ SENILES—

O + or O —.

NEURALGIA—

Misnomer.

PERITONITIS—

C +.

RHEUMATISM—

Misnomer.

STOOL—

Mucous in: NCR.
 Straining at: I. A.
 Following on O + or O — condition.
 Tarry: M —, or T —.
 White: T —.
 Watery: T +.

STIFFNESS OF THIGH—

T —, or C +, or M +.

SUBPHRENIC PERITONITIS—

C +.

Now, if you add to this subphrenic abscess you have NCR.

TUBERCULOSIS of peritoneum—

NCR.

TUMORS—

X +.

URETER—

Tuberculosis of: NCR.

Constriction of: M +, or C +, or X +, or T +, E —.

TWO, THREE, FOUR LUMBAR.

ABDOMEN—

Pain in: I A —
 Distention; M —
 Enlarged: M —.
 Varicose veins of: M —
 Retraction of: M +
 Rigid reti muscles of: M —.

ABORTION—

Where following subluxations pathological abortion might be
 I A, or O +, or O —

ABSCESS—

NCR.

ACNE—

NCR, E —

AFTER PAINS—

I A Of course, if you take the standpoint that no pain is possible in a normal woman any time during the carrying of the child or during child birth or after child birth. If you are going to assume that standpoint, then, of course, after pains would hardly be possible.

AMENORRHŒA—

T +.

APPENDICITIS—

C +. May result in NCR.

APHTHÆ—
NCR

ASCITES—
T +

ASTASIA-ABASIA—
M +, or M —

BARRENNESS—
O +, or O. —

BED SORES—

A great many people have the idea that a bed sore is caused by lying in bed. This is the general cause physicians give for these sores. There is, however, many an individual who does not lie in bed more than the usual number of hours, and yet has a continuous string of bed sores upon the hips; and many an individual lies in bed constantly and still has no bed sores. It simply goes to show that there is a sublaxation, and the condition is NCR, the same as in any abscess.

BLADDER—

NCR for Cancer of.
Tuberculosis of: NCR.
Pain of: I. A.
Inflammation of: C +.
Strictures at: M +, or C +, or T +, E —, or X +.
Openings of: M —, or product of NCR.
Bladder stones of: C +.
Acute catarrh of: NCR.

BLEEDING from the bowels—
M —.

BLOODY FLUX—
NCR, M —.

BOWELS—
Bleeding from: M —.
Consumption of: C +, E —.
Inflammation of: C +.
Tuberculosis of: NCR.
Other disorders of: O +, or O —.

BUBO—
NCR

BOWELS—
Hemorrhage of: M —.

CALF OF LEG—
Depletion of: E —.
Elephantiasis of: X +, or C +, or T +, E —.

CANCER of the uterus—
NCR

CARCINOMA of rectum—

NCR.

The only difference between a cancer and a carcinoma is in name, the equation being exactly the same. There is where you get an idea of the value of equations in simplifying what diseases are to your minds.

CATARRH of the uterus—

NCR.

Now, the only difference between Cancer, Carcinoma and Catarrh is in location, degree and size. Catarrh will cover the surface of a mucous membrane excreting a flowing mucous. Cancer the same, but instead of superficial will cover deeper structures under the mucous membranes. Carcinoma will not only go deeper but takes in muscular surface. The equations of the three being exactly the same with the exception that it covers different quantities of tissues and different degrees of function.

CESSATION OF MENSTRUATION—

I. A., or O +, or O —.

For instance, after adjustments some cases that usually menstruated in regular periods have ceased all menstruation and yet were perfectly normal; carried on duties of motherhood, being a process of I. A., and in fact my ideas on this is, the normal woman will not menstruate at any time in the sense that menstruation is a hemorrhage because hemorrhage from any part of the body is an unnatural condition. It wouldn't hardly seem proper to think that once a month a male had to have a hemorrhage from the nose in order to be healthy. It was on this theory that years ago the medical men worked out the idea that every person who was sick had to be bled at regular intervals in certain quantities in order to be healthy. Based his argument on the fact, don't women have a hemorrhage once a month?

CHOLERINE—

I. A.

CHOLERA INFANTUM—

I. A.

Now, if you are going to adjust a case of Cholera Infantum, what are you going to adjust? The I. A.

If bowels doing normal functions, what would you adjust? Nothing to adjust. O +, or O — will carry it.

CHOREA—

M +.

CHORDEE—

I. A.

CHRONIC DIARRHŒA—

T +.

CHRONIC DYSENTERY—

T +. What is the difference between Diarrhœa and Dysentery? A. Dysentery is a more chronic condition, that is all.

CHRONIC ENLARGEMENT OF THE WOMB—

X +, C +, T +, E —.

CHRONIC INFLAMMATION OF THE WOMB—

C +.

CHRONIC PERITONITIS—

C +.

CHRONIC RHEUMATISM—

Misnomer.

CLAP—

Misnomer.

COLIC—

Appendicular: M +.

Flatulent: M +, with C +.

C — making a gas.

Intestinal: M +.

Mucous: NCR, M +.

CONSTIPATION—

In the infant: M +, or M —.

Of pregnancy, M +.

CONSUMPTION of the bowels: C +, E —.

CONTRACTIONS of the womb: M. Abnormal, M +.

CONTRACTURES—

Of the muscles of the abdomen: M +.

CONVULSIONS—

M +.

COSTIVENESS—

T —.

In constipation the fæcal matter may be normally wet, soft, of a cheesy consistency, and in constipation there is a more or less paralyzed condition of the actions or contractions of the muscles composing the muscular walls of the abdomen. The fæcal matter in its consistency is normal, but the bowels in themselves cannot pass the fæcal matter on. In costiveness the walls of the bowels may be perfectly normal, but the consistency of the fæcal matter is solid, hard, dry. You might say the stomach is normal, but the food in the stomach is not normal. In the other the food in the stomach is normal, but the stomach not normal. In constipation the walls are not normal, but the fæcal matter is. In costiveness the fæcal matter is not normal and the walls of the bowels are. So costiveness would be: T —.

CRAMPS during menstruation: M +.

Abdominal: M —.

Calves of legs: M +.

CYST—

T +, E —.

DIARRHŒA—

T —.

- DISEASES of child bed: O +, or O —.
DISEASES of ovaries: O +, or O —.
DISEASES of pregnancy: O +, or O —.
DISEASES of the vulva: O +, or O —.
DISEASES OF THE WOMB—
 O +, or O —.
DROPSY—
 T +, E —.
DYSENTERY—
 NCR, T +.
DYSMENORRHOEA—
 I. A.
ECZEMA—
 NCR, E —.
ELEPHANTIASIS—
 X +, or C +, or T +, E —.
EMISSIONS—
 I. A., or M —, or T +.
ENLARGEMENT of the Womb—
 X +, or T +, E —, or C +.
ENTERITIS—
 C +.
ENTEROPTOSIS—
 M —.
EPILEPSY—
 M +.
FÆCES—
 See same under U. P. P.
 Also K. P. and R. P.
FALLOPIAN TUBES—
 Constriction of: M +.
 Lack of development of: N —.
 Inflammation of: C +.
 Tuberculosis of: NCR.
 Any abnormal function of: C + or C —.
FEMALES—
 See Males.
FEMUR—
 Periostitis of: C +.
FESTINATION—
 I. A.
FIBROID—
 Tumors of the womb: X +.
FISSURE of the anus—
 NCR.

FLEXIONS OF THE WOMB—

M —.

FLOODING FROM OVARIES—

M —.

FLUX, Bloody—

M — NCR.

GENITALIA—

Pain of: I. A.

GESTATION—

O + or O —.

GLEET—

NCR.

GONORRHOEA—

NCR.

GRAVEL—

C +.

GROIN—

Enlarged glands of: X +.

Swelling of: X + C + T + E —.

HEADACHE—

Periodic: I. A.

HEMATURIA—

M —.

HEMORRHAGE—

M —.

HERNIA—

M —.

HIP JOINT DISEASE—

O + or O —.

HOUSEMAIDS KNEE—

T + E —.

Might have C +.

HYDROCELE—

T + E —.

HYPERTROPHY—

N +.

IMMOBILITY—

M —.

IMPERFECT SEXUAL DEVELOPMENT—

+ or O —

IMPOTENCY—

+ or O —

INCONTINENCE—

M —.

INFLAMMATION—

C +.

INTUSSUSCEPTION—

M + or M —.

INVOLUTION OF THE WOMB—

M + or M —.

ITCHING of the vulva: I. A.

JOINT—knee; disease of: O + or O —.

KNEE PAIN—

I. A.

KNEE HOUSEMAID'S—

T + E — and possibly C +.

LABOR PAINS—

I. A.

LEAD POISONING—

T — or E — or T — E —.

LEG—

LEUCORRHEA—

NCR.

LICE—

I. A.

LUMBAGO—

S +.

MALES—

Sexual diseases most common in: Sterility of: O + or O —.

MAU-BOUND—

Same as constipation: M —.

MEMBRANE—

Mucous: of bowels:

See also At. P.

M. C. P.

Spl. P.

S. P. and General Diseases.

MENORRHAGIA—

M —.

MENSTRUATION—

Painful: I. A.

Too frequent: M —.

Suppression of: M +.

CLOTTED—

C +.

Bad smelling: NCR.

METEORISM—

C +.

METARORRHAGIA—

M —.

MESENTERY—

Diseases of: O + or O —.

MISCARRIAGE—

M —. You can have O + or O —.

MORNING SICKNESS—

I. A.

MUSCLES—

Atrophy: N —.

Hypertrophy: N +.

Paralysis: M —.

MYOCLONIA of limbs—

M +.

NEURALGIA—

I. A.

ONANISM—

C +.

ORGANS OF EXCRETION—

E + or E —.

OVARIES—

Tuberculosis of: NCR.

Prolapsis of: M —.

Abscess of: NCR.

Tumors of: X +.

Any disease of: O + or O —.

PAINFUL MENSTRUATION—

I. A.

PALSIES—

M +.

PARALYSIS—

Paraplegia: M —.

Supposing you were making a pie, what would you put into it? Flour, salt, lard, water, apples, sugar, cinnamon.

Building an equational system upon baking, which is and is not done, yet there is a mutual equational system understood. If we were building equations, we would put these, "F. S. L. W. A. S. C.," and for the second "S" we would change to possibly "P," having it understood that "P" means "Sugar." Instead of writing the word, we take the first letter.

Flour can be measured from pints to hogsheads, in sacks, barrels, or quart cups. Flour is a material thing, for one pie we will

use one pint of "F." If two pies, we will use 1 qt. of "F." If making pies for a hotel, we will say 1 bbl. of "F.," or if you wish to again put that into an equation we will say "F. B." equals that quantity. If you want more pies, your equation continues multiplying in quantities of the same elements.

Salt is a material thing and can be measured in a teaspoonful, tablespoonful, cup, pint, quart, sack, or barrel.

"L" equals Lard. You can weigh, buy it in ten-pound, six-pound, four-pound, or 100-pound cans.

"W" is measured by pints, quarts, gallons, or barrels. "A" is measured by barrel, half-barrel, or peck. Sugar can be measured the same as salt, and also Cinnamon is weighable, measurable when ground.

The idea is to show material things, which can be weighed and measured, so that when you want to buy or make pies you do so according to weight or measure.

"W" flows, is measured by meter: by something it goes thru. Therefore you buy by measurement. This machine called a meter registers every gallon, quart, pint, and drop. Everything you have to make a pie of is weighable, and yet other elements are not weighable. You have only seen one-half the pie—the substances.

For instance, give two women the same quantities of materials, weighed and mixed, one will make a pie nobody would eat, another everybody would run for. Some women are cooks, others are not. The thing which goes to make quality isn't listed. It cannot be weighed, measured, and that is the currents in man—good judgment, how long, when baked, etc.

These bring us to other essential equations—functions in man, viz.: nutrition, calorification, secretion, excretion, reparation, reproduction, motor, expansion, sensory; nine elementals which make the living man. We have no way of measuring these. We can tap a wire that is passing electricity and interject a meter; it will register how much current is going through. You can do it with water, but you can't with man. There is no known means of measuring or weighing the velocity, speed, or strength of currents in man; consequently, when we try to measure, we do so only in imagination, as they appear, and, after all said and done, we do so only in an abstract way.

Suppose we say that the standard foundation of electricity is 100 volts of electricity through a meter per one minute of time. Where there was more than 100 volts per one minute of time, that would be above; if below, it would be inferior to our abstract standard. We can measure exactly, by a meter; with man, we cannot. We approximate, in an abstract way, by saying that 100 per cent is our basis, and yet we are not able to scientifically prove when anybody has reached 100 per cent. We are not able to say what 100 per cent is. We form in our mind a picture of what 100 per cent would be and then we form another picture of what it is doing. Any picture that we conceive and place in mind, of a standard from which we figure above and below, is arbitrary and

for the purpose of logic, but we must have a basis nevertheless. Otherwise we must consider all people equal whether sick or well; but all people are not. Some are sick, others well, implying that they are of different standards. They are not all alike, and so much as they vary and as I see that variance, we admit that there is a fluctuation of quantities of currents, and to admit that implies there is a basis where we can get below or come up to. If we go below a certain point, we are dead; if we go to another point we are alive. If we go beyond we get too much and shorten the time of life. There are two deaths. One because not enough and drags time, and one too much, thereby decreasing. People die because too hot, too much fever, or because too cold. I can't lay down a scientific or exactly scientific foundation for any of these three bases, or how far you can go down, nor by any machine or mechanical device how far up, before you die, nor what is the median line between. This is a question beyond all but logical measurements.

There is nothing that finite man can do to measure infiniteness of being, quantities, qualities, or boundary lines. Where there are no boundary lines it is impossible to make them. Infinitely there are no degrees within comprehension. Finitely we make boundary lines to understand things.

Man lives to be happy; is happy only when satisfied; is satisfied only when he feels harmonious; feels that way only when he's well, and well only when the standard is reached. What is my standard is not another's, and neither can one judge for another—that is a province only within the Innate of the person under discussion. To all, the approximate mental understanding can be reached, lectured upon, and hypothecated with, but no use made thereof scientifically. Each person has reached standard when he feels well—no one person can feel well for another. When I have no aches or pains, when (so far as I know) every organ is working good, my mind is clear, my thoughts and actions sane—then I am normal and need no further comprehension of a standard. Each man makes and clearly appreciates his own. When any physician guesses at the standard of quality of food, amount of oxygen, what to drink to replenish, it's a guess, for he cannot pass upon your standard except as you attempt to tell him what you think your standard is or should be by the symptoms you give, and no man is exact in transplanting thoughts into words, because your educated mind (which speaks) is not your Innate, nor does the former know the latter.

In building this system of equations, we wanted a standard. One hundred cents made one dollar, in the decimal system. One hundred per cent was recognized as standard everywhere. It takes one hundred years to make a century. For the purpose of elucidation, we assumed 100 per cent standard, saying that if man was acting 100 per cent of nine primary functions, he would work all right. If we get 100 per cent of nutrition (whatever that 100 per cent is), it would be normal. If he got 100 per cent of calorific impulses, then heat functions would be normal, etc., with the bal-

ance. If he got 100 per cent, he would be normal in the particular function of which he was getting the 100 per cent. That is, if you or I were to get 100 per cent of each of these nine enumerated functions, you and I would be the normal or ideal man.

One hundred per cent indicates much, and tells absolutely nothing. It tells something I think about and tells nothing I can deal with. While this equivalent system tells much, in the last analysis I do not know more than when I started; but I say I do not know more only because we have no known means of measuring. We have no machine that can be tapped to the nerve and say that it is registering to 100 per cent.

If we had a machine we could tap the arm of a paralyzed man, let it register the number of Innate cycles or cycle foruns going through his nerves, and when it passed through 100 per cent of cycles per one second, that man is well. If we clamp on the machine and find it running down to 64 per cent per second, then that man is shy 36 per cent cycles per second. Our adjustment must restore that number cycles per second before our case is well.

But we have no machine. Therefore we are figuring on nothing, yet on everything. This seems to offer a contradiction. It is a logical contradiction and yet a logical fact, because 100 per cent mentally presents something. One hundred per cent physically presents nothing, and science is based on facts—known facts, as machinery and meters register quantity passing through wires or perhaps a hose.

Our equational system is working on the presumption that 100 per cent (whatever that is) is normal, and from that we estimate whether we work above or below. We assume our basis for a normal condition is 100 cycles per one minute of time, passing thru every nerve. A man comes; he has a fever. We know readily the man is hot. The thermometer, which is a "scientific" test, proves the temperature. It is 104 when it is supposed that it should be 98.6. We have no way of knowing how much the currents are running above 100 per cent. This is C plus. That is, it is in an excess of calorific function. When you talk about excessive heat or C plus you don't know how much plus C is, nor how much above C plus means. When we say C plus, that is as far as we can prove. We might say C plus, implying 200 cycles are going through the nerve per one minute, and yet how can you prove it? Do you see how little we know about man in the last analysis?

A patient enters; you don't know how sick he is. You say he is "awfully" sick; but "awfully" is not very scientific. He is "very" sick; how much does that mean? There is no line. It is purely arbitrary. After all, we assume a basis above and below, and what the basis is we don't know. It is purely a mental vision, and that is all we can do until some day, some time, somebody gets a machine that will register human electricity. I think that if two meters, bought from the same firm, made for the same purpose, were to register the currents of man which were 100 cycles per

minute, and that man went to a physician, his meter would be twisted back to 86.

Notice an average temperature chart. It gives the days and hours in the day at which it is highest and lowest. It gives a divisional fluctuation of temperature, whether below or above normal, as a product of the expression of cyclic currents.

Assume that our basis is one complete cyclic current of calorific impulse which gives the expression of one unit of heat, as under that basis what is registered is but the fluctuation of temperature. It doesn't register the fluctuations of that which made the effect possible—the currents. Authors show the material half of the cycle. You can not observe the subtle half; it isn't there. Equations show the other half.

How much has our 100 per cent of calorific cycles been increased when it reached the highest point?

Then we take a sudden fluctuation and down it comes to C—. We realize C— is below C, but when it comes to putting that difference in figures of the actual conditions in a body, you can't. See how little you and I know about quantities of excesses or minuses. That is what I talk about. If there had been as much time, study, and labor put on studying causes and effects, of fluctuations of causes, measurements and means to measure currents in the last one hundred years that has been in studying effects, we would be more than gibbering idiots today; as it is, we jabber our insignificant education. Today they have means of measurements for every material you can think of. They weigh the sputum in the mouth, look at it (with a microscope) and count the bugs per speck. They measure the effects of any case, but can't tell about weighing or measuring currents of causes. We know so much about effects that isn't so and so little about cause that is.

What are some of the symptoms of a general typhoid fever? Excessive heat; headache; pain, general weakness; chills; sweating; cough; nosebleed; ulceration in the bowels. I will show what this man has got, according to the equational system. For elucidation I will number these 1, 2, 3, 4, 5, 6, 7, 8, 9. What is your equation for 1? C plus 2—I. A.; 3—I. A.; 4—M-; 5—C-; 6—T. plus, E- or I. A.; 7—I. A.; 8—M-; 9—NCR. You have analyzed your man. We have said for No. 1 excessive heat. It was C plus because we have more of that function than needed. Second, we had headache. There was an ache in the head because of the non-action of the broken circuit of currents. The aching was the mental interpretation of the physical abnormal conditions externally; that is an Intellectual Adaptative process. The difference between pain and headache is degree. General weakness. Lack of strength—lack of currents to cause contraction. The difference between a strong and weak man, one is getting currents and the other is not. Lack of motor functions. "Chills." Man is cold because he has no heat. It is possible to have C plus in a left arm and C— in a right at the same time. (6) T plus, E—. T equals secretion. You sweat secretion, and "T" is the equational letter.

E—, meaning excretion, you have not enough. Then, I. A., because with a C plus the skin gets dry and scaly and at such times Innate Intelligence sends out a bath of moisture over the body. That is the characteristic night sweat in Tuberculosis. We don't have cough unless there is something to upheave or tickles and this is purely to relieve that condition. Then we have (8) N—. Nose-bleed indicates hernia, prolapsus, allowing blood to run.

(9) Three functions. Nutrition, N—; excessive heat, C plus; R—, reparative. Not enough of two and too much of one. This is fundamental for all degeneration. You can remember that by thinking of National Cash Register. They boost NCR like we do The P. S. C.

Disease is a combination of conditions. Suppose I bring you a patient and all you could find wrong was C plus. Wouldn't you call that disease? Supposing I brought another whose body or a particular part was cold. C—. Wouldn't that be a disease? Another comes, tells you he has T plus. That is a disease? A man comes with dry, scaly skin. E—. That is all wrong with him. Isn't that a disease? You call it Herpes. These conditions you name. You have N—. Lack of nutrition and you call it atrophy. You have another who comes with R—. He fractures a bone. It runs for months and years. It doesn't, can't heal. Isn't that a disease? This man has seven distinct diseases, seven combinations, any one of which would receive a distinct name in itself. C plus. If that was all, you would call it fever. If M—, you would say neurasthenia. If he had C—, a chilled body. If T plus, perspires too freely; too much perspiration; or if E—, dry and scaly. If N—, atrophy, or if R—, fracture won't heal. It is because some bright, shrewd scientific student saw this combination once in a while appearing together and wasn't able to distinguish one from the other, and whenever we get this combination, he said we have typhoid fever.

I do not want you to think that this is always the correct analysis for typhoid fever; but, if that was correct, he would so call it. If one of those combination symptoms didn't happen to be in, he would probably call it typhoid malaria or interject some other word that would take off that distinctive word typhoid—probably typhus, because typhoid represents a specific set, no more nor less.

All this equational system does is to show that the man who has one disease called typhoid is having no less than seven diseases. If he came with one you would adjust it as a disease. In the last analysis the equational system deals with questions of quality, plus or minus. The more you analyze, the nearer you reach causes instead of effects. That is why I see no use of present-day Symptomatology. It never has been of value in analyzing cause, and unless we do, we accomplish nothing. Analyzing effects makes you able to talk to the other man. He is ignorant of cause. You come down to the level of what the other man doesn't know, and talk to him on what he does. I don't come down to other man's bases. If I have something better, he comes up.

The equation for any sore, decomposition, degeneration, is always N—, C plus and R—. That will always bring a pus, mucus, as any form of cancer, Gonorrhea, Leucorrhea, Catarrh, scrofula. Where there is any running or open sore, there is your fundamental. Change that in the least and the action is different. If it were possible to weigh things in quantity and I was to say N—, C plus R—. Five per cent shy, five per cent excess; five per cent shy, the product would be catarrh. If I carry it farther and say, 10, 10, 10, now, the patient is twice as bad because there is involved twice as much material; instead of calling that a pimple, it would be a boil. If I were to say 20, 20, 20, instead of calling it a boil, it would be a carbuncle. If 40, 40, 40, instead of a carbuncle, they would call it ulcer. Multiply that twice, it would be a small cancer. Go up, and it would be carcinoma; so when you analyze from the smallest pimple to the largest cancer, the fundamental is the same. It is but a question of quantity of amounts of one or the other.

Supposing you have C plus R—without the N, then you would have atrophic fever. We talk of functions on the ground of seeing effects. We are able to measure effects, but not causes. Those functions are different, as elucidated by given clinical observations, clinical interpretations of conditions, yet when it comes to clinically interpreting the cause, it is absent because of the heretofore absence of proper mental understandings of causative equations.

Anatomy is the study of structure; Physiology is the study of functions; Pathology is the study of diseases, anatomy gone wrong, abnormal anatomy, or sometimes even spoken of as morbid anatomy. Physiology being the study of functions of the body, the functions must have something that induces or produces them, and that has been outlined with functions and the relation of Innate to the tissue cell. Pathology might be defined as being the *result* of abnormal expression of function. An "equation" is an expression of equality. Abnormal function is equivalent or equal to pathology.

"Diagnosis" is simply applying a name to a certain kind of pathological condition; for instance, blood is running from the nose; we call that nose-bleed. To be more technical, epistaxis. Another example. Examine the gall-bladder and find a concretion of biliary calculi; we call the disease gall-stones, and thereby make a diagnosis. If you add all symptoms which arise from hepatic colic or gall-stones, you are making a diagnosis. A Chiropractor does not make diagnosis, but it is necessary to find which functions are abnormally expressed. If you do not know, you cannot apply the equations, nor can you tell the patient what the effects of the adjustments will be; what the cause of his condition is, and, further, whether the adjustments will relieve it, nor in what way.

We will take a pathological condition or disease, and formulate an equation. Take nose-bleed or epistaxis, which is easy. The only way we can formulate an equation is to know what the pathological condition is or what morbid change has taken place in the

wall of the blood vessel from which the blood is oozing. As I said before, it is pathology that tells us this, and pathology is always discovered by close examination. Some pathological conditions can be explained by observation and inspection, but most have to be determined by the microscope. In the human body there are white and red corpuscles in the blood, and are supposed to be always found in the blood vessels. Under normal conditions the blood remains where it belongs. In nose-bleed the blood has left the heart, where it goes into the blood vessels, and has left the blood vessels, so the pathology tells how they left the blood vessels. It is necessary to get the construction of the blood vessels, and we get that from anatomy, which is the study of structure. Every blood vessel, no matter how small, has three coats. There are muscular fibres which run lengthwise; other muscular fibres run around (transverse or circular); others run obliquely across the transverse and longitudinal fibres. Anatomy further teaches that these individual muscle fibres are supplied with nerves. These transmit force from brain to muscle fibre. Each muscle fibre is endowed with a certain amount of tone. This gives to it the power of contractility. (A good example of this is in the arm. Work it out for yourself and see how simple.) Blood vessels and heart are never at rest for any length of time. Just as we have the systolic beat of the heart, which is in the movement in the heart to give impetus to the blood.

Under normal conditions, each individual muscle fibre in the blood vessels of the nose is receiving 100 per cent of mental impulses from the brain, and are in a normal state of tonicity. Just as long as this normal tone exists, they are held in proper position one with the other. If you should cause a pressure on the nerve trunk which supplies all these fibres, so as to cut off 50 per cent of the mental impulse, the individual fibres are in an abnormal state. You would have a 50 per cent relaxed condition of the fibres because they have not the proper force which gives them tonicity. The extent of the relaxation would be in proportion to the amount of mental impulses which have been closed off. With only 10 per cent cut off, relaxation would not be great, but with 50 per cent of mental impulse shut off, then the fibres which support the walls would be so relaxed that there is nothing to prevent the blood from passing between them. There is the pathological condition in "nose-bleed."

We will get an equation for this condition. As we said, there are nine functions; which one of the functions has gone wrong? "Motor" is the thing lacking; so we form the equation, "M—."

Take another example: Anæsthesia means without, lack of, or no power of sensation. For example, you touch this table; you don't know your hand is on anything unless you see it. If you should put a match to your hand, you would have no sensation. I have seen such complete cases of anæsthesia that hot irons could be put at the patient's feet to keep them warm, and the irons would burn the flesh, and the patient know nothing about it. Anæsthesia,

or similar cases, is "Sensory," and the equation would be S minus. Sensation is expressed in this way: there are little end organs of the tactile sense found on the skin all over the body, and especially on the tips of the fingers. That is why we palpate with the tip of the finger instead of any other part. These end organs take up impressions as they come in contact. Impressions are carried over the afferent nerve to the brain, where interpreted and sensation sent back to the end organ, so that it seems that we feel with the tip of our fingers, but we really feel in the mind. In this case nerves leading to the arm are not receiving full current. There is a pressure on them somewhere, and consequently a loss of sensation. The equation will be S minus.

You have seen cases of atrophy where it may be accompanied with paralysis and the arm hangs limply at the side. In a condition of this kind the equation would be S minus for the atrophy and M minus for the paralysis. If the arm was plump and healthy-looking, it would seem that the condition was that of paralysis; but if thin and emaciated, we know that atrophy is present and there is lack of nutrition, and the equation would be N minus.

Delayed closure of the fontanelles (that is the spaces in the cranium). In the new-born infant's head these are not joined, but these do not become bone until the first or second year. We cannot give an equation until we know something of the process of ossification. There are two forms—the intramembranous and the intracartilaginous. The intracartilaginous is found in the heavy bones, and the intramembranous in the flat bones, and that is the kind of ossification which takes place in the skull. The ossification starts at certain centers and keeps spreading until all are ossified. In the case of fontanelles, the bones have become ossified in every place in the skull but this. By the end of the second year these fontanelles should be closed or ossified. If they are not, there is something wrong. There are millions of unused cells and if these are not distributed from the ossific center, the fontanelles will not close. The function which has to do this is expansion. So the equation for delayed closure of the fontanelles is X minus.

You have seen a case where the skin is very dry, there is a small amount of urination, great swelling of legs, thighs and abdomen; in the later stages there is swelling in the face and chest. There is a certain amount of water being taken into the system. There is a certain amount of waste material constantly formed in the body. This waste is excreted through the lungs, bowels, and kidneys, together with the various parts of the serous circulation. The bowels excrete the solid material in the form of fecal matter; the kidneys give off the fluid poison through the urine, and sweat glands also give off their share. When we see a person with dry skin, scanty urination, etc., we know there is some wrong condition in the kidneys. You can notice that by pressing down on the swelling leaves a dent and proves there must be fluid. Here we have the function of secretion expressed abnormally. The normal urination is about three pints. This individual only urinates one-

half pint, and he drinks six; he is taking in more than excreting, and the function of excretion is lacking. You have a condition known as T plus or E minus.

Take a case of mumps, you see a marked swelling of the parotid gland. This resembles a bunch of grapes and is one which empties the fluid into the mouth which creates saliva. It is only a certain size and only capable of retaining a certain amount of secretion. Swelling of that gland might result in the plugging of that opening and secretion contained there would be a poison. Yet it might be possible for the function of excretion and the function of secretion to be going on, but they might be out of proportion to each other and the condition would still be abnormal. There would then be a case of œdema, which is an accumulation of fluid in the areolar tissue. The equation then would be E minus or T plus. For all cases of hypertrophy in general, unless you have a specific condition, we usually give the equation T plus, or E minus, or T plus and E minus.

I have outlined a few of the diseases and the equations for them. For instance:

Paralysis—Equals M—.

Anæsthesia—Equals S—.

Dropsy—Equals E—and T plus or T plus; E—.

Atrophy—N—.

There are five functions involved, Motor, Sensory, Secretion, Excretion and Nutrition. Here is one in which secretion is involved: Xerostomia or dryness of the mouth, which is found very often in the later stages of mumps. The mouth is dry and that equation will be T—.

Often in certain forms of paralysis or monoplegia, we find that the arm is cold, and the function lacking there is calorific and the equation would be C— for the cold extremity. The equation for delayed closure of the fontanelles would be X—. Reproduction is represented by Y, and a good example would be barrenness or sterility and the equation would be Y—. Reparation always accompanies nutrition or expansion. We have R— in combination with X—, and you could not have normal reparation and lack of nutrition, because if the cell is replaced, or if a worn out, exhausted cell has no further work, it would be impossible for the cell to grow or expand unless it was nourished. These two work almost entirely together.

We will take trismus, as it is a good example. The equation for this condition will be M plus, and why? Because the masseter muscle or chewing muscle is contracted and as a result the jaw becomes quite immovable and the condition is called lock jaw or trismus.

One in which there is excess sensory, hyperaesthesia and the equation would be S plus, being excessive sensibility. One in which there is excessive secretion will be diabetes, and the equation will be E plus. Hypersecretion will be represented with the equation

T plus, which is excessive nutrition. For hypertrophy the equation will be N plus. A fever of any kind is C plus.

A case of tumor of any kind would equal X plus. I do not know of any case where there would be Y plus. Some one asked the question recently if a case of twins would be a case of Y plus, but it would not as that condition is a result of the fertilization of two ova.

We will take some diseases where there is more than one function abnormally expressed. In paralysis we have both motor and sensory abnormally expressed. In paralysis we have both, and the equation would be M— and S—. In dropsy there might be a lack of excretion and excessive secretion. The swelling of parotid gland or the swelling in a case of dropsy will illustrate the point and show the condition in a case of T plus and E minus. Here we have a tube carrying water into a tank, and here is another emptying it out. This second tube is capable of emptying out fifty gallons of water per day and the first is capable of carrying fifty gallons per day. If the size of the tube is not increased so that it only carries fifty gallons per day, but the size of the first tube is increased so that it runs sixty gallons per day, the conditions would not be the same, and we would have a case of excessive excretion and the tank (or body) would be affected. We have a case which resembles dropsy, for the body is only capable of secreting a certain quantity, and more than that would mean an abnormal condition, or a dropsical condition. We might say the second tube increases to 60 gallons and the first decreases to forty. There we have a condition known as diabetes, which is excessive excretion. In a case of infantile paralysis we have an M— followed by a lack of nutrition, where one extremity, we say, is lacking growth.

Take up a condition where there is NCR, that is N minus, C plus and R minus, and that applied there is a case of suppuration or a suppurative condition. It can be explained in this way. If there is a lack of nutrition and reparation, the anabolism or building up process is stopped, and as soon as that occurs another process starts. If that portion of the tissue which is affected was put in an ice box, it might remain in the same state for some time, and the same is true of a piece of meat. A piece of meat will remain in that condition for some time, but put it here, where it will get the rays of the sun, or, in other words, where it is subject to heat, and it will soon decay. The same is true in the human body; if the nutrition and reparatory functions are stopped, there will be an accumulation of dead matter in the place where the minus condition exists. And, as soon as heat strikes these parts, they will decay and suppurate. In conditions such as these, we have a condition known as N minus, C plus and R minus, and this equation would apply to such diseases as have eruptions of any sort. In a case of pimples the condition is slight; probably the next step higher would be a small boil, and still a later stage would be a carbuncle and the condition is greatly increased over the earlier

stages, and so we could carry the conditions under this equation up to the very worst stages.

Take an ulcerated tumor, and here we have four equations involved, NCR and X plus. This would be the equation in any condition of tumors or any tumorous growth with ulceration. In the beginning stages of tumors there is only X plus and no NCR condition; but as soon as the suppuration begins in tumors, then we have the NCR.

The equations given are the principal ones used for pathological conditions. Certain symptoms arise from pathological conditions for which there is no equation; that is, you only form an equation for a diseased condition, but diseased conditions is not all there is. Sometimes there is pain. The symptoms may arise where there is no diseased condition that we can see, and if that was the case we might say there is no apparent pathological condition. Since abnormal expression of function is equal to pathology, there would be no pathology, as there is no abnormal expression of function.

Let us suppose that there are boys jumping. As one of the boys jumps, he sprains his ankle and as a consequence there is extreme pain in that region. Is there any possibility of pain there without a subluxation in the spine? Yes. Here is another example. The arm place may be normal and yet, stick a pin in your arm, there will be pain, and this would not be a pathological condition, it would merely be a case of traumatism. But the pain is the intellectual adaptation or, in other words, the symptom. We give the equation for any kind of pain, regardless of nature, as I. A. This intelligence is endowed with power to discriminate between that which is good and bad for the body. Innate controls all movements, actions and functions of the body which would be for the best. The way thon knows what is best for the body is this: The message is taken up over the end organs, through the nerves to the brain where the mind interprets it. If the hand is hurt Innate will not allow it to remain where it is, it will draw away. The pain is simply a part of the process. Over the afferent nerve to the brain, where it is interpreted, and back over the efferent nerve to the tissue cell the return message is carried.

Nine Primary Functions

Yesterday I outlined the nervous system, today we will take up the nine primary functions. Before that I will briefly review the important parts of the nervous system that we should bear in mind while studying nine primary functions.

First, we have the nervous system, composed of nervous tissue, the most delicate and highly developed of the four elementary tissues, the larger portion being found in the cranium and called the brain. These brain centers have elongated portions called nervous or nerve fibres. They are formed in the brain and converge toward the base of the skull where they form the spinal cord, pass down through the spinal canal and give off thirty-one pairs of nerves to the various parts of the body. That makes thirty-one nerves on each side of the body. These nerves leave the neural canal in pairs through the foramen and pass to all parts of the body. They are all the same in structure but different in function. The one carrying or conveying the mental impulses or the vital force from the brain to the tissue is called the efferent nerve, and the one conveying the vibration from the tissue back to the brain is called the afferent nerve.

The next thing to consider is the function of the nervous system, and we took that up briefly yesterday but will speak more of it today in the study of the nine primary functions, because all of the functions of the body, including the nine primary functions, are, or should be, in harmony with the general function of the nervous system. From the simple cycle which I gave yesterday, which was the cycle of the mental impulse, I said it was created in brain cell; transmitted over efferent nerves, expressed in tissue cell; the impression is given; it is conducted back to the brain by means of the afferent nerve, where interpreted. So there is life so long as there is this mind or force working through matter. The result of this force working through matter might be called metabolism. To define metabolism more thoroughly, it is the building up and tearing down process of living material. It is divided into two parts: the tearing down, called the katabolism; and the building up, called anabolism. So long as there is no interference with the transmission of the mental impulse from the brain, this metabolism, including katabolism and anabolism, is carried on normally. So long as there is no interference with the transmission of the mental impulse, the mental, brain or nerve current, everything is normal and working in the same manner which it should be. This gives rise to what is called the functions. And these are nine in number, nine primary functions.

These functions are called: Motor, Sensory, Secretory, Excretory, Calorific, Nutrition, Expansion, Reparation and Reproduction. Each of these has an abbreviation which stands for the word

M—Motor.

S—Sensory.

T—Secretion.
E—Excretion.
R—Reparatory.
C—Calorific.
N—Nutrition.
X—Expansion.
Y—Reproduction.

Can these nine primary functions exist merely by the transmission of mental impulse to the cells themselves? Or, can mental impulse alone be expressed in the tissue cell? In other words, you might ask for an explanation of anabolism to outline the action of the impulse. In the process of anabolism three things are necessary. Food is required; it is taken into the mouth where it is masticated and comes in contact with the secretion of the salivary glands; it passed down the alimentary canal and is taken into the stomach where gastric juices act upon it. There are various chemical and other changes here and then it goes into the intestines, or at least what remains goes there, for the mucous membrane of the stomach has absorbed some of it. In the intestines it undergoes intestinal digestion; and that which has not been absorbed is excreted. After the intestinal digestion, the process of digestion is complete. All parts of the food which were soluble have been absorbed and will be used by the various parts of the body.

With food alone the cells cannot expand and grow, something else is essential and that is oxygen. We obtain oxygen through the air by purification in the lungs. The blood is made up of two kinds of corpuscles, the white and the red—the red being given their color by the hemoglobin—during respiration, oxygen passes from the air sac cells of the lungs, through the blood vessels and the oxygen is carried to every part of the body, to every tissue and cell.

The third thing which is necessary is mental impulse. These are carried to every part of the body, even the most minute parts of the nervous system.

The result of the harmonious union of the food, oxygen and mental impulse is anabolism or function. In other words, if some food is carried to the cell after it has been digested, if we breathe in air and oxygen is carried to the cell, if the mental impulses are carried to the cell, then we have as a result of this the function of anabolism.

The mental impulse acts as a spark which unites the oxygen with the food and the food with the oxygen. It is transformed so that it can become a part of the tissue cell of the body, which, without any nutrition, could not exist. For example, the nutrition is carried to the right arm and the three functions are working together. The result is life in that arm. Without any one of the three essentials, food, oxygen and mental impulse, that arm will not grow as it should; there will be a condition known as atrophy.

In outlining each of these, we find that the first function is *motor*. This has to do with the tonicity of muscle fibres; whether they are in the proper tone or not.

Next, the *sensory* function has to do with the sensations to be felt.

Then we have *calorific*, which has to do with heat.

Secretion is that function which has to do with the formation of the fluids which are made by glands throughout the body.

The function of *excretion* is that which has to do with the elimination of any material or fluid which is found in the body, which is of no value or that is poisonous or injurious to the body.

Nutrition is that function which has to do with anabolism, as I have just described.

Expansion is that function which has to do with the growth of new tissue.

Reparation is that function which has to do with the replacing of old worn out cells or exhausted cells in the body, with new ones.

Reproduction is that function which has to do with the production of the species.

We said before that it was necessary for three things to make normal function. We know that there are only nine different kinds of function. For instance, if we have the combination of food, oxygen and mental impulse, the result is *nutrition*. With food, oxygen, mental impulse and *calorific*, the result is heat. Does the mental impulse act upon the food or oxygen alone? No, there must be the harmonious union for normal function.

We know that all muscles of the body are made of many bundles of fibres. Each is supplied by each one of the nine primary functions through nerves. Muscle fibres are also endowed with the power of contractility, as long as the muscle fibre is receiving 100 parts of normal *motor* function there is normal tonicity.

Take the *sensory* function. There are in various parts of the body in the skin small organs, called tactile end organs and sometimes end bulbs. Each end organ is supplied by sensory nerves or nerves having the sense of feeling. When any impression is applied (and by that I mean any external agent, a chair, table, heat or cold, or any change), when it comes in contact with the end bulb or touch corpuscles, the impression is taken up and sent over the afferent nerve to the brain where it is interpreted. You may think the pain is in the finger, but it occurs back in the mind. There are various kinds of impressions, but that can be taken up at another time.

Take *Secretion*. This is a function which has to do with the glands, both internal and superficial, such as the stomach is lined with mucous membrane which contains glands which secrete. The liver, the largest gland, is supplied by nerves which give it the power of secreting bile. There are many glands in the body, and they all have the power of secreting.

Excretion is that function which throws off from the body anything which is harmful or poisonous to it. There are certain poisons being constantly formed in the body and, if conditions are not abnormal, this substance is excreted. If the excretory apparatus is not acting normally, it causes an accumulation of poisonous material in the body. It is dammed back and there is disease. Those organs which have to do with excreting waste are the bowels, kidneys, skin and lungs. In the lungs the carbon dioxide is purified and the bad air is given off, and the pure air is carried away by means of the blood to all parts of the body. In the kidneys we have the excretion of poisonous materials in the form of a fluid. The bowels excrete all solid material which is of no value to the body or injurious to it. The sweat glands of the skin work in conjunction with the kidneys in excreting fluid; they excrete sweat and help in cooling the temperature of the body. All these excreted substances are of no value to the body.

Reparation is that function which has to do with the replacing of old worn out cells with new ones. They can become duplicated to a certain extent and can be repaired by nutrition to some degree, but when cells become old and worn out, they have to be replaced by new ones which come from cell centers throughout the body. The process by which these are replaced is called reparation. I want to say here that expansion, nutrition and reparation work in harmony one with the other.

Then the last of the functions is *reproduction*. This is a function which is located in the generative organs and is practically the same in both sexes. In the female the ovary secretes the ova, and the ova is the female element of the foetus of the future child. The testes of the male secrete the spermatozoon which is the male element of the foetus. These two become united in the fundus of the uterus of the female, where the blastoderm is formed. It is first composed of two layers, but later a third layer forms. There is the hypoblast, the epiblast and mesoblast. Hypoblast is developed into the epithelium and the lining of the alimentary canal; the epiblast forms the skin and nervous system and the mesoblast forms the muscular and intervening tissue. This function may be absent in either of the sexes, caused by a subluxation of the lumbar vertebræ.

Excess of Function—How?

I want to present what is known in electrical problems as Ohm's Law. Possibly many are familiar with that law but undoubtedly many are not. A good knowledge of Ohm's law will assist you in understanding what we mean with 100 per cent of power or force thru 100 per cent of matter per 100 per cent of time, etc. I want to explain what relation one bears to the other, so that knowing any two of the three you can always get the third.

In all electrical problems this rule applies, we deal with the electro-motive force, the current and the resistance thru which the current flows. A change in one of the three will make a change in the other two, or, possibly, in one of the other two. That is, a change in the electro-motive force may make a change in the current, but not in the resistance, the resistance remaining constant. I will explain, if I can, how you can determine what the current would be with a given electro-motive force and a given resistance. You can apply this explanation to your chiropractic problems; I will give it electrically.

Ohm's law is based upon the fact that one ampere of current will flow thru one ohm of resistance as a result of the application of one volt of pressure. The three divisions of electricity—the voltage, current and resistance—are named after investigators and scientists who have made the discoveries of the unit of force, or current and of resistance. Ampere, a Frenchman, was the discoverer of a unit of force; and Ohm, a Dane, was the discoverer of the unit of resistance; voltage named after Volta.

So, in all electrical problems we have electro-motive force and resistance or ohms. We call the electro-motive force "voltage"; the currents, "amperes." When we say "current" we mean the total amount of currents passing thru a given circuit. When we want to state the exact amount of currents passing thru that circuit we name it in amperes, and the amount of resistance in ohms. Ohm's law states that the current in any electrical circuit is equal to the electro-motive force divided by the resistance, from which we get the following formulas:

Current equals Electro-Motive Force divided by R.;

E. M. F. equals Current multiplied by Resistance;

Resistance equals E.-M. F. divided by Current.

If we make a change in the electro-motive force, the current will vary directly with it; that is, if we increase the E.-M. F. we increase the current, if we decrease the E.-M. F. we decrease the current. But if we make a change in the resistance, the current will vary inversely with the change; that is, if we increase the resistance we decrease the current, if we decrease the resistance we increase the current. You can apply this very nicely to the problems which you hear from this platform from time to time from the faculty members when making comparisons between the proportion of power, current and time.

We will take, for instance, a dynamo capable of manufacturing 100 volts of current, a lamp connected to the dynamo with a resistance of 100 ohms. We wish to get that amount of current we will have, as a result, 100 volts acting through 100 ohms of resistance. Dividing the voltage by the resistance, we get one, so one ampere would be the result. I don't expect you will grasp at once, but it is as simple as "A, B, C," being a mere matter of multiplication or division. When it comes to working and figuring out cycles, pressure upon nerves, which is the interference with the flow of mental impulses which is a sort of resistance in the circuit, for the nerves are part of the circuit, you will find that Ohm's law will help you greatly in getting a good clear working idea.

Q.—How would you burn out that globe?

A.—By increasing the E.-M. F.

Q.—Increasing the speed of the motor or the size of the motor—something to that effect?

A.—That would be increasing your E.-M. F. There is a capacity to every electrical machine. If that machine is, in any way, worked to a higher speed than the machine's capacity, so as to manufacture more than its maximum capacity, something will have to give way, it may be the machine or the lamp may burn out. For instance, the lamp requires one ampere to bring it up to 16 candle power of light. If we introduce one and one-half amperes, we shorten the life of that lamp. If we were to double the current and force going to the lamp, it would burn out instantly.

Q.—Could you do that by a rheostat?

A.—No, for the rheostat is a resistance. The lamp in a circuit is a necessary resistance, while the rheostat is an artificial resistance, inserted there for the purpose of using the excess of current.

The current is lowered by the introduction of the additional resistance offered by the rheostat. As I said, any change in the resistance will work an opposite change on the current; that is, increasing the resistance will decrease the current, etc. When you introduce the rheostat, you are increasing the resistance, not the current.

Q.—Is there a method by which the current can be made greater?

A.—Yes; there are step-up and step-down transformers. On the alternating current we have both, either one way or the other.

Q.—Would that resistance bring an excess on the transmitter?

A.—Yes.

Q.—By that excess of resistance?

A.—Would the insertion of resistance in an electrical circuit bring an excess on the transmitter. Is that your meaning?

Q.—Yes.

A.—Do you mean: Would it bring an excess of current flowing through?

Q.—Yes.

A.—Yes, by either increasing the E.-M. F. or decreasing the resistance. For instance, if we have a 200-ohm lamp in the circuit, we have a resistance of 200 ohms; if we take that lamp out and insert a lamp with 150 ohms or 100 ohms resistance, we increase the current in proportion to the amount we decrease the resistance.

If you wish to insert resistance in your circuit and still maintain the same amount of current, you will have to increase your E.-M. F.

Q.—Does this problem explain to us how you can have an excess of mental impulses by a subluxation?

A.—I think that we can show that, where the pressure upon certain nerves having certain functions will decrease the amount of mental impulses, resulting in a disarrangement of the function in the tissue cells to which the nerves lead, which would leave too excess a function in the other functions concerned.

Q.—That would not be Chiropractic, would it?

A.—Nerve functions are of an electrical character, and where you interfere with the proportions of ingredients in any chemical composition, you change the nature of the whole. For instance, the comparison of manufacturing vinegar. Say, for instance, we had citric acid and wished to make vinegar. We would have 100 per cent of acid and 100 per cent of water combined, and we would have a dilution which we would call "vinegar;" but if we should put in but 50 per cent of water, then we would have a different solution altogether, stronger and more active. It takes 100 per cent of one function added to 100 per cent of another to produce a certain effect in any tissue cell. The cutting off and abridging of one function will alter the other so that it will act in excess. In the cutting off of 50 per cent function in one nerve, the functions of the other nerves to a tissue cell need not necessarily be curtailed in their expression, making it below normal. They would be performing their function up to 100 per cent but they would be lacking 50 per cent of the function disturbed, so that we would have a disarrangement of the chemical process. That is all disease is—a combination of chemicals, normal or abnormal. When all nerves are free to act, we have a normal performance of the chemicals of the body; when there is any interference with any nerve or any set of nerves, we have a disarrangement of the chemicals of the body, and disease is the result of the action of the poisons which are the result of the chemical disarrangement.

In our general premises there are three things we consider, viz., force, matter and time. It takes force to move matter, it takes matter to be moved by force; without force and matter there would be nothing in motion, without motion there would be no vibration, without vibration there would be no life. Whenever force acts through matter or force passes between the atoms of matter it takes a certain percentage of time. We say that it takes one hour for the large hand of the clock to get from the figures "12" around the circle. The hand, as it is being moved upon by force, represents

matter changing position, and it took an hour for a certain amount of force to move a certain amount of matter around the cycle once.

You can take any consideration of anything material that is being moved by immaterialities, and it takes time to do it. For instance, we have 100 per cent of Innate force which acts upon 50 per cent of spermatazoon and 50 per cent of ovum, which two being combined make 100 per cent of matter, called the "embryo." The 100 per cent of force and the 100 per cent of matter acting together represent absolutely nothing until we add the ratio of time or 280 days. Two hundred and eighty days to do what? To accomplish a normal unit. It would be impossible to say, "Given 100 per cent of force and 100 per cent of matter and you would have a child," because that would not be true. You must add to it 100 per cent of force acting through 100 per cent of matter in 280 days, and we will have a child.

How long it takes a thought in a brain to travel from there to a tissue cell at the tip of the finger and return to the brain cell, is computed to be 100 feet per second. Even time here becomes a factor.

If a man is well today and six months from now sick, you cannot expect to get him well in one minute of time. Time must be taken as the third factor. In the majority of your considerations, you think of force and matter, but you do not add the third element—time—into your equation as you generally argue and debate upon these things amongst yourselves as students.

We have said what would be necessary to make the normal child. Supposing we had 100 per cent of force acting upon the same kind of 100 per cent of matter in only 140 days. We would have half a child, the reason being not but that the amount of force or matter was normal for the given space of time in which it was working, but the time was only one-half of what it should be. Supposing, on the reverse, that it were possible to have 100 per cent of force acting upon 100 per cent of matter in 340 days. The product would be a child too large, not but that the force or matter was right in quantity, but that the given amount of time to the space where located was excessive, consequently the product is equal.

Take the given illustration. Here is 100 per cent of force per 100 per cent of matter per 280 days; the child is born weighing six pounds, which is a trifle below normal; the child lives, and at ten years weighs 16 pounds; at twenty years is only 24 inches in height and weighs 20 pounds; the child lives to forty and is 32 inches high and weighs 50 pounds. There is evidently something wrong. This individual is commonly known as an anomaly, a pigmy or dwarf, and is exhibited as "a freak of nature." Nature makes no freaks; it is the perversion to the acts of "nature" that makes freaks? What was wrong in this "pigmy"? The amount of matter was deposited originally; the amount of force was ready to be expressed, but the amount of time has shown that at forty years

we have only the work accomplished that should have been done with a boy of eight. In other words, he is still living at eight years with a growth of matter over forty years of time. He is growing too slow. The amount of force that actually got in activity into the matter was reduced. In other words, there is only one-fifth of the force per five-fifths of the time.

Take the opposite result. A child is born at the end of 280 days, and weighs eight pounds; inside of two years weighs 60 pounds; in ten years the child weighs 460; so we might go along until we get to records of people weighing seven or eight hundred pounds. What occurred? Take the concrete example of where the person at forty weighs five times more than the average human being. The force that acted through the matter was greater, the matter was approximately the same except as the pro-ratio increased, but the time in which this force acted was much reduced. That is, the person was living the weight of ninety years when thirty.

I will explain that differently by saying: If one gains a pound a day, and loses just a little less than a pound a day, he gains in weight and grows; if a person gains more than he loses above this ratio, he increases in weight and decreases less than he ought; consequently fattens.

Take the illustration that we use so often of tumors. If we lose one cell a minute and we have another cell take its place in the same minute, it is a condition of normality; but if, as we lose one cell three cells come to take its place per minute of time, we would have *two more* cells than is normal per that amount of time. You keep that growth for hours, days and weeks, and eventually you have a *tu-mor*. If that condition be prevalent all over in adipose tissue, we call him or her the fattest man or the fattest woman in the world, the idea being that we have "two-more" tissue cell than is normal per one minute of time. For every cell that increases above its ratio, there must be a forum of force to increase it; consequently our matter has increased, and the time in which this should have taken place has decreased. He is living three times as fast as he should per the amount of time in which he lives, for the individual's full life should have been ninety years and he would have used up all his cells in reserve in early youth, and at thirty his ossific and other cell centers would have been depleted, then he would have died the "natural death;" but if he uses them three times as fast, and in that ratio, when he is thirty he will die because he will have used up all of the cells in reserve.

The amount was normal, he was simply living ninety years of time in thirty years. Consequently, we may say he lived three speeds of life in one physical period of existence. At thirty years he will die. There is not an excess in the amount of force or in the amount of matter, because there could be no more matter than what was in reserve, there could be no more force than the amount of reserve demanded to be used, but the amount of time was reduced, consequently the action was excessive.

We have a tank above which holds one hundred gallons of water, a tank below which is filled with one hundred gallons of air, a pipe between that is able to carry one gallon per minute. How long will it take to transfer this water from one tank to the other? One hundred minutes. One gallon goes from the tank above to the tank below in one minute of time. Supposing this aperture of this pipe was reduced so that only one-half gallon went through per minute. How long would it take to fill the tank below? Two hundred minutes. You see where there is a *lack* of current. Supposing, on the reverse, the pipe remained the same size but the pressure on the water above became twice as great, and the water rushed through at the rate of two gallons per minute. How long would it take to fill the tank below? Fifty minutes. In any one of the three illustrations you haven't added any more matter in the form of water; you haven't added any more force in the illustrations, but you have transformed it from one to the other in different periods of time by increasing or decreasing the period of time in which the act took place, which increase or decrease was brought about by increased or decreased pressure. In electricity we can place a rheostat upon the path of the positive current, which will introduce a resistance to the transmission of the current, and introduce an element of minus quantity at the other end. We can introduce a transformer or a "booster," and we can lessen the resistance and increase the amount of current at the other end. The three elements remain the same—force, matter and time. I see where we can offer resistance to the transmission of currents, and I see where there is a less amount of resistance offered with the subluxation.

I do know, however, of an experiment that has been worked by people that beats the water company. They place a meter below the main carrying pipe, which is small. On the inside of the meter is a dial. The water, as it comes into the pipe, registers its force upon the dial. If the pipe is a small one, the water goes through quickly and with great force, hits the dial hard, registers a high amount of water used, especially when the outlet pipe from the meter is a large one which takes the water away quickly. If you want to beat the water company, reverse the pipes, put the large one on the incoming side, the small pipe on the outgoing side. The amount of water comes in easily, touches the dial lightly, does not register high, the small pipe going from helps to hold the water into the meter and keeps the dial from registering high. Thus, you get the same amount and in the same time and at less cost than you would if you were to let the water company fix your meter.

Here is the same amount of force used, same amount of water, time is equal; in one place it registered a high dial measurement, in the other less.

Man's normal temperature is 98.6, as it averages. We know that because thermometer tests have proven it to our satisfaction. We know that at other times the thermometer will register 104 and 105; still other times will register between 90 and 98. This

thermometer represents a fluctuation above and below; doing nothing more than registering the activity of structure. When tissue works fast, high heat; when it is slow, low heat; when a wire vibrates high we have high sound, when low we have low. We know that the body fluctuates in speed of activity in its normal and abnormal functions; and, as matter functionates quickly or slowly, just so fast or slow must the currents be in their transmission.

Supposing we divide a fever in three periods—incubation period, that is when the man was normal. Then he reaches the maximum of temperature, that is the feverish period; it may drop from time to time and come up again, but the time I mean is when it reaches its maximum the first time and reaches its maximum for the last time. The third period is during recuperation, or, in eruptive fevers, the period of desquamation. Putting them in another form, the period of invasion, the fever period and the sweat period.

Take up the normal period. The conditions are 100 per cent of caloricity—that being the name for this particular kind of force—is acting through 100 per cent of matter in 100 per cent of time; the product is 98.6. To make it more explanatory, we will say 100 per cent of temperature. The second period shows that we have 100 per cent of force acting through 100 per cent of matter, but we have shortened the time in which it is acting. The result is that our temperature is high. In the third period we have 100 per cent of force working through 100 per cent of matter in an elongated amount of time, and the temperature is lowered.

We have 100 per cent of electricity going into a 100 per cent globe in 50 per cent of time. How long would our globe exist? We would have twice as much electricity going into the globe as was necessary to give us a normal standard which was 100 per cent of candle power per 100 per cent of time. We would theoretically have 200 per cent of candle power in 50 per cent of time. We would burn out the carbon in the globe. In fact, that is what causes carbons to burn out. Reversing that order, we have 100 per cent of electricity going through 100 per cent of matter in 200 per cent of time. How much candle power would we have? Just one-half of what we should have, or the globe would burn twice as long, time computed. Now, you see, we haven't lost the original standard of the amount of matter, which was 100 per cent; but the time in which these two got together has fluctuated which made them appear to be in excess or in minus.

Coming back to my original fever illustration, we find that the temperature of this man was—conceding that the fever period is three weeks of time—for the first week 100 per cent; we find that for the second week it was 105 per cent. To again reach our standard of time, force and matter being equal, the third week the temperature must drop to 95 per cent per the given amount of time to again give the possibility of starting out even on our fourth week with 100 per cent of force acting through 100 per cent of matter in 100 per cent of time to establish 98.6 degrees. In all

pathological conditions wherever there is an excess there must be a minus. The excess and the minus can not be at the same time, and usually are not, but there always come these two following each other closely and it matters not which comes first.

You have a case of typhoid. The fever is up for a period of time, the percentage is high, and the patient is strong, feels able to do things; but once the fever goes down the patient feels temperature is low and he feels weak. He is going through the period of recuperation. Notice the drop is in ratio as before there was the rise. In other words, the time must be equalized in the performance of functions.

There is where the damage follows stimulation. Stimulate and you must go through the inhibition period following. You who have taken Turkish baths, know how good you feel while taking the bath; but, if you watched, you noticed a sensation of drowsiness, like lying down to sleep afterward. You relax to compensate for the good feeling you experienced while taking the bath. That is true of all pathological conditions, which goes to show that Innate understands the equalization of force and matter with *two given spaces of pathological time* in which she acts.

We see a case of paralysis agitans. Theoretically we say that he has too much force, working 150 per cent of force through 100 per cent of matter in 100 per cent of time. In reality he is not doing that. He is working 100 per cent of force through 100 per cent of matter in a diminished amount of time. If you observe that man during sleep, you would find that he does not shake, no paralysis agitans then, because paralysis agitans is an educated abnormal function. In other words, it is but the educated muscles that are agitated. Could you watch his period of relaxation and measure it, you would find he would drop below the percentage of relaxation that you or I experience who have not paralysis agitans. The degree of agitation that occurs during waking hours is compensated for at night time by an *extra* relaxation, so as to equalize the two periods of time, the amount of force of *all times* being 100 per cent working through 100 per cent of matter.

The great trouble in our observations is that it is hard to explain why one speck is as we see it. Go to the bedside of a feverish patient, put in the thermometer, and it registers 105. We say that the condition is "too much fever," therefore there is too much function, too much function means "too much force." The amount of matter is the same—100 per cent. That analysis would theoretically show the hypothesis of 105 per cent of force working through 100 per cent of matter plus *that* given space of normal time. *We should observe both, the periods of fever and chilliness, and contrast those in their relation with the time, force and matter.*

We observe a case, *today*, without taking into consideration the possibility of the state of that case tomorrow when he is in the *opposite* condition—and in every case there are two opposites. I have said there were, in reality, two diseases, (1) where there is

an excess and (2) is a minus of function. We should, in reality, say that there is but *one* disease having two counterparts, excess of function being the viewpoint of *one half* and minus of function being the other, and those two form the whole of the disease, consequently should be so considered. In both phases (*if regarded as one*), *the amount of force and matter* equalize to the standard of 100 per cent but intensify the time to one-half and there is an excess; reduce the time observed and there is minus. If we do not inject the *thought of time* we are at a loss to know where we are at in our analysis. One half draws upon the other, or the other one-half has been drawn upon. Today, with the fever, draws on tomorrow's normality, tomorrow's relaxation was drawn upon by yesterday's fever.

Right on that point I may bring out an idea that is new. I have never heard it mentioned any place else. We have two kinds of temperature, one being the increased normal and the other is the abnormal or excessive temperature. We will say my temperature is 98.6. There is a certain possibility that I possess, of increasing or decreasing that temperature within a normal range. It would not be abnormal if I should go out in the sun, run a half-mile and perspire freely. Put a thermometer in my mouth, you would find that my temperature would be 98.6, although I feel several degrees hotter. That would not be pathological, but a normal increased temperature. Suppose I sat down in a room at, we will say, 20 above zero and I don't move; if my functions be normal my temperature will not reduce but work faster and compensate. A thermometer put in my mouth would show my temperature is still 98.6. Supposing it dropped, that would be a normal decreased temperature because it is working within the normal range of my possibility. If, without normally doing something to increase the temperature, it should rise or fall, even within the range of figures given, that would be a pathological change in temperature. Thus, there are two kinds of raising or lowering of temperatures, that which is normal in activity and that which is pathological.

Five Theories of Excess Function

We say that function is the expression of the mental impulse in the cell, and we took a standard of health as being 100 per cent of mental impulses working through 100 per cent of matter. Mental impulses, however, are something that cannot be measured. We have instruments for measuring the tonicity of muscles, for registering the blood pressure, etc., but there is no instrument which will measure mental impulses passing over or thru a nerve or register the vitality of the patient. We know there are times and conditions arising that upon analyzing appear to be the result or the product of an excess amount of function. For instance, fevers rise and a fever is any temperature above 99.5; in fever there is an excessive heat in the body; there are times when the muscles are extremely tense, or in a condition of hypertonicity; when glands become enlarged from overgrowth of tissue, etc. The question arises, is EXCESSIVE heat produced by an excessive quantity of calorific mental impulses—that is, more than 100 per cent passing over this nerve and being expressed in all parts of the body, is this muscle fibre contracted from the expression of more than 100 per cent of motor mental impulses?

Fever, or excessively high temperature, muscular hypertonicity and this tumorous growth can be restored to normal through adjustments, as has been done in the past; therefore, the cause of the trouble is the vertebral subluxation, producing pressure on nerves interfering with motor function thereby producing hypertonicity of muscles; with function of expansion producing a tumorous condition of the thyroid gland and causing goitre; in each of these instances adjustments have been given and restored conditions to normal, so that is sufficient proof that the vertebral subluxation is the cause of the excessive abnormal expression of function.

The question still arises as to *how* can that vertebral subluxation produce excessive expression when in other cases it produces a lack of function. I cannot give the answer. I do not think any one knows, for the reason that the mental impulse is something immaterial. You cannot consider mind the way you can matter, in quantity, because it is measurable only relatively. You can, however, form certain theories regarding these excess functions. It is not going to make you any more capable in reducing excess function to normal by knowing these theories, but sometimes they are of value in satisfying questions that patients ask. You might find instances where one theory seems more reasonable or logical than another, although all work on a fundamental line or principle.

Theory One: If there was a severe subluxation that produced a *heavy* pressure on the nerve, it deadened or paralyzed this nerve and prevented it carrying the normal function to any part of the body, and the result was a lack of function, but if there was a very *light* pressure on the nerve it stirred things up, made an irritation

so to speak, and produced hyperactivity of the nerve or mental impulses, the result being excess function. But if that theory is true normal function would be no pressure or between the light and heavy pressures.

Theory Two: We know that the body does not require the same amount of food under different conditions, therefore does not require the same amount of mental impulses at all times. The stomach is going to require more after a heavy meal than before.

Here we have the brain, the efferent nerve, the stomach, its afferent nerve to the brain, and the brain—completing the material circuit—representing the Simple Cycle. The brain sends different quantities of mental impulses to the stomach at different times, yet these different quantities are always 100 per cent. Put it this way, if we could measure mental impulses, we would find that the stomach will only need ten pounds per hour before a meal and twenty-five after, say, to carry on digestion. Before dinner this ten pounds was equal to 100 per cent, and after dinner this twenty-five pounds was equal to 100 per cent, so that what constitutes 100 per cent can fluctuate or vary. The way in which the brain knows the quantity of mental impulses required by the stomach is by the interpretation of impressions which it receives over afferent nerves. Before dinner the interpretation was that the stomach only wanted ten pounds per hour, while after or during dinner we find that the impressions assume a different quantity, as they are given to it by the food being in the stomach, when the brain gets the information which says that the stomach is requiring more impulses to digest this food, to secrete the juices, to give the stomach its peristaltic action, etc., so the brain works faster, and sends down 25 pounds of mental impulses per hour to digest the dinner.

Suppose that just after dinner our individual—that is, the patient—should fall and produce a severe S. P. subluxation that would impinge the afferent nerve only. The last normal impression that the brain would have received from the stomach was one which said the stomach needs 25 pounds of mental impulses, the gastric juice has to be secreted at the rate of a pint or a quart an hour, and that was what the stomach was doing at this time. Since there is a subluxation here after this time, the brain is not going to receive normal impressions and she may still continue to send 25 pounds to the stomach, even after the dinner has been digested, because she is unable to get true impressions from the fact that the afferent nerve is impinged, so she will continue sending impulses at the rate that is demanded by the last impression received. Then the patient may say he has hypersecretion of gastric juice, that there is too much gastric juice being secreted. This is just given in brief as an example.

There is this possibility, however: This efferent nerve may, or it may not, carry back the same impulses that are sent over the afferent nerve, only they are in the form of expressions as they come back, and if that is true the Innate which is in the brain, and which is intelligent, would have the power or would be able to

subtract from the demand of the impressions and say that the stomach only requires so much. But if the impression is something entirely different from the form of the impulses, and is not in the form of an impulse, that is formed by the stomach or the tissue cell, then this theory might be of some value.

The third theory advanced takes chemistry as an analogy. We will take three chemicals and call them A, B and C. We can take one ounce of A, two ounces of B and one ounce of C, and combine them. We have four ounces, and it makes a new chemical, D. Take two ounces of A, one ounce of B and one ounce of C, and you have still a different chemical, E. Take one ounce of A, one ounce of B and two ounces of C, and you have a still different chemical, F. In other words, combining these different chemicals in different proportions, we have different results. Take the nine primary functions, combine them in various ways and there will be different results. I think in the average individual there is less than 100 per cent expression of all nine primary functions, more or less. Take excretion, and suppose there is an impingement on the nerves that control this function, so that excretion is only being expressed at 75 per cent of the normal. Then we can say that nutrition is only being expressed at 60 per cent of the normal. The result is accumulation of waste material. Applying the normal bodily heat to this waste material which is accumulated in the body, the result is decay or the oxidation of waste materials, which might be referred to as a process of destructive metabolism or katabolism, and the result is heat or C plus; and by different combinations or degrees of pressures existing there of less than normal, it will give rise to conditions which in our analysis will appear abnormal.

Say there is a subluxation at K. P., which prevents the kidneys from normally eliminating poisons from the body. The result is E —. Say there is a subluxation at S. P. and one at 2nd L., which are preventing normal digestion, and the albumens are not being properly worked on by gastric juices, fats are not being properly digested by bile and intestinal juices in the intestines, the result is that the individual will soon be in a state of malnutrition, the cells are not properly built, they become exhausted, worn out and are not being replaced by new ones, therefore they will accumulate and be waste material for the reason that the kidneys are not throwing waste products off. Applying heat to this waste material, you have decay, or oxidation of dead material by excessive heat. This is an example of the third theory.

Here is the fourth theory: I will take a definite organ to explain this thought. The thyroid gland, when receiving 100 per cent of mental impulses of all the eight primary functions, secretes a certain quantity of thyroid fluid; which, we will say, is one pint in 24 hours. To carry on this process of secretion is going to require the life of a certain number of cells. As any organ works it is going to require force, and as time goes on cells become exhausted, used up, and have to be replaced by new ones. As long as these 100 per cent of mental impulses are being sent here, Innate carries

on the development, multiplication and growth of these new cells at a rate of speed which continues to keep the secretion at one pint in 24 hours. But suppose the individual should receive a subluxation at S. P., produce a pressure on nerves which interferes with the secretory function, produces a condition which we describe as T —. We will say the secretory function is being expressed at only 75 per cent of normal. In place of one pint we only have $\frac{3}{4}$ of a pint being secreted in 24 hours. If there is only $\frac{3}{4}$ of a pint, it would not require the use of so many cells. In other words, it would not be necessary for nutrition, expansion, reparation and all of the other functions to be expressed at the same rate of speed as when the organ was secreting one pint. In other words, the less work the organ is doing the less force it is going to use, and since the work has been diminished $\frac{1}{4}$, the force could be diminished $\frac{1}{4}$ if necessary. But we will say that adaptation is not taking place, and that the mental impulses are still being supplied at the rate of 100 per cent, the result is that these cells will soon ACCUMULATE because they are being expanded or formed faster than used. The result is that in a few months, or a few years, you will have a large accumulation of cells which is called goitre. The tumor then forms not because the cells are being formed too fast, but because they are not being used fast enough.

With regard to the fifth theory, that which appears to be excess function is the result of abnormal katabolism. It is the way in which this abnormal expression of function manifests itself. Before explaining that I want to read a paragraph from Butler regarding abnormal temperature (Butler, 2nd Ed., 1908) :

“Heat production (thermogenesis) depends upon the destructive metabolism, mainly processes of oxidation, which are constantly going on throughout the tissues of the body. The skeletal muscles and the glands, especially the liver, constitute the chief seats of heat production.”

If that is true it explains why we adjust C. P. for fever. It is quite frequent that the 5th D. is adjusted for liver trouble. If heat is produced largely by the glands of the body, especially by the liver, when being produced excessively, the C. P. adjustment or the 5th D. adjustment would restore that to normal. In other words, if there is an impingement at liver place which prevents the liver from getting rid of its waste materials, they begin to be oxidized here, begin to be burned up, to be destroyed, and the product of this is heat, which is carried all over the body by the fluids. By giving the adjustment at C. P., you permit the liver to regain its normal excretory power. It then gets rid of this waste material.

“Heat dissipation (thermolysis) takes place mainly through the expired air, and by conduction, radiation, and evaporation from the skin. As from 77 to 85% of the total heat loss passes off from the cutaneous surface, the skin must be considered as the principal factor in heat dissipation.

“As the normal temperature of the body varies within such narrow limits, there must be some means of regulating the

relative amounts of heat production and heat dissipation, that they may balance each other with exactness, and under widely differing circumstances."

Now, notice how close they come to the Chiropractic theory.

"It is quite certain that a heat-regulating (thermotaxic) mechanism exists as a part of the nervous system, although the mode of operation and location of the heat centers, and the nerve paths through which the work is accomplished, are as yet uncertain, experimental work upon this point not having given decisive results."

Accepting that to be true, the only question which remains is, what produces destructive metabolism, then you go back to the mental impulse theory. The subluxation prevents the metabolism from being normal, because metabolism is the product of normal expression of 100% of mental impulses combining food with oxygen. If there is a lack of these mental impulses, there will be abnormal metabolism, which permits the formation of poisons and the accumulation of waste material, which when it becomes oxidized produces excess heat. If it can produce excess heat, it is possible that it can produce other functions in excess as well. We know there are certain poisons which will produce excessive muscular contractions. If you have seen a dog poisoned by strychnine, you have noted the convulsions that he goes through. Another is tetanus. So if we can produce excess heat or excess muscular contractions, we will find conditions where it can produce other excessive functions.

The question of excess function is one that is very confusing. There are two things, however, in regard to it, which we do know. Function is the result of the action of the Innate Mental Impulse in the cell; that Calorific is a function of the body and there are times when there is excessive heat, therefore there is excessive function. There are times when there is extreme muscular tensility and we say that there is hypertrophy, or excess in the size of an organ and there are more cells than there should be, so we say the function of expansion or growth is in excess. Where there is hypertrophy there is over nutrition. But, by giving a proper adjustment the function of these affected parts, where there is over normal expression of function, can be restored to normal.

Then the question arises, did the pressure on the nerve cause the excess function or did it not. If excess function does exist and if adjustments will remove that excess function and cause that function to become normal, we can safely say that the subluxation did cause the excess function.

The second question which arises is this, going back to our decision that function is the result of action of the mental impulse in the cell, when there is excess function, does it necessarily indicate that there is an excess quantity of mental impulse passing over the nerve or not, or does it simply mean the way in which it happens to be expressed? The answer to this question I don't know and I don't believe anybody does. It looks more reasonable to believe

that there is not an increase in the quantity of mental impulse when there is pressure on a nerve; that is, if pressure of nerves causes a decrease in some cases, I cannot conceive of how it would cause an increase in the flow of mental impulses in other cases.

In studying the special senses, the eye for example, you probably understand that different substances have different functions, that is they have different powers of reflecting the light. There are certain substances which will absorb a great deal of light and reflect little. Then there are those which reflect much and absorb little. We will take the two colors, black and white. Black will absorb far more than white. That is why a black suit is hotter in summer than a light colored one; the absorbing powers of black are great and the reflecting powers are great in light colors. Depending upon the degree of reflecting ability of the substance, we find that the light which is reflected, that is, the rays which are reflected, are of different wave lengths. In physics they measure these, some are 375 millimeters in length; then there are others which are 325 millimeters in length and others measure 550 millimeters in length.

In a case where there is a wave length of .375 m. m. it will produce a certain color, A.

Another case where there is a wave length of .325 m. m. it will produce a color, C.

We will call A. red, and when A. and B. meet, they give rise to a color of green. A combination of red and green gives rise to blue. All other colors are simply combinations of these—for example—if we take a wave length which is some number between the second two, it will give rise to some color between the two, and we will call this new color Y, and .420 m. m. produced that color. Another one—.496 m. m. will produce another color and we will call that Z.

In place of excessive heat being caused by 135% of calorific impulses passing down over the nerves, it might be produced in this way, that as long as calorific could be decreased or increased in proportion, there is no excess function, but we will say that calorific may be decreased to 96%, the function of secretion may be reduced to 74% and the function of nutrition reduced to 90% and a combination such as that might result in excessive heat as in each case there is below the normal percent of mental impulse. We will suppose that there is only that quantity of mental impulse passing down over the nerves when that particular function is expressed in the tissue cell.

Excess function means that there is over 100% of mental impulse in proportion, passing over the nerves. The function is not the mental impulse, but something which the mental impulse caused. That is one theory.

Now another. There might be one where there is excess motor function. The motor function may be only 99% but the other function may be greatly decreased, we will say that one is 76% and the other 32% and if that is the case, the 99% of motor

function will be greatly in excess to the other two which are greatly below normal. Yet a combination of these three conditions might give rise to hypertonicity. Normal tonicity is the proper degree of tenseness of the muscle fibres. We will take for example a violin string; you get a certain tenseness, and the note will be above the pitch—you get that looser and probably the note will be still off the pitch which you desire—but you adjust that string again and you have the proper pitch. I cannot conceive of any case where there would be more than 100% of motor mental impulses passing from a nerve but I believe I can see where there could be hypertonicity where there was 99% of motor mental impulses and a decrease of other functions in lower proportion.

The other theory is this—the relation of the brain cell to the tissue cell. The interpretation takes place in the brain cell and the expression is at the tissue cell. We said before that the duty of the afferent nerve is to conduct impressions from the tissue cell to the brain, which impressions being interpreted Innate would know if the tissue cell needed calorific impulses to keep it at the proper temperature. The only way the mind could get notice of cold would be by the impression. Then again the condition of the body might be lacking in the proper tonicity. The only way the mind would know of this condition would be by the impressions which Innate received—and this carries out in every part of the body. Interpretation gives the knowledge which is necessary.

The theory then is, that the function we believed to be expressed in excess, is normal or possibly slightly below normal, but the reason it appears to be expressed in excess is because the amount that is expressed is not able to be used.

In a condition of excess heat, there may be only a normal quantity of calorific impulses passing from the brain to all parts of the body but this heat is prevented from being radiated thru the body and accumulates in excess quantities and raises the temperature of the body.

In a case of secretion where there is hypersecretion, the reason for this is not necessarily, because of an abnormal secretion, for the secretion might be normal, the amount of secretory mental impulses might be normal, yet the secretions which are given off, are not being used, therefore they appear to be in excess.

Preface to Second Edition

Since the above edition was published, five years ago, Chiropractic has gone ahead by leaps and bounds, the clinical observations have multiplied many hundred times, all of which has verified the work as laid down in this former volume, to our satisfaction.

What follows was then published as Vol. 4 of our library, it now becomes a part of Vol. 2. It is our intention to compile as much as possible for study and to use as text-books in *The P. S. C.* We feel that this gathering of all that was formerly in Vols. 2 and 4, and other manuscripts in addition, will be appreciated by the Chiropractic profession, as it brings all subjects down to date.

We wish to thank our profession for the tremendous sale of this as well as our other books. We trust that our endeavors in this work alone will warrant a large sale.

B. J. PALMER, D. C., Ph. C.

Preface to First Edition

This data has been compiled because of a desire to record the experience of the thirteen years of Chiropractic, from its birth to the present date, on this line. This book will be enlarged, amplified and improved in future years, but its basis and fundamental will remain the same. During the time mentioned we have learned that all of medical lore does not teach *the* cause of *a single disease*—this work aims to cover *all* most thoroughly. This gives the location of *the* cause of all possible combinations of functions to coincide with all complexed effects. It quickly but thoroughly shows the vertemere (as a causative factor) and speaks of the effects (as effective meres) under names as our medical friends (?) have *diagnosed* them. *The P. S. C.* sometimes take a case through this tedious, tiresome and unscientific fashion (that is subject to many changes), but knowing the basis of *where* these effects are expressed, remains the same for him as for us, therefore we accept the term. I would prefer *the meric system* and will some day publish a work on that subject to cover these same grounds.

In filing this data and having the same printed, I take it for granted that each student has carefully studied Vols. 1 and 2, dealing with the philosophy and fundamental principles, and that Vol. 3 has been carefully studied point by point; therefore he is ready to know *where* to adjust. Vols. 1 and 2 tell *why* adjustment is preferable to treatment. Vol. 3 tells you *how* to palpate and adjust. Vol. 4 tells you *where* to adjust. It will be seen that this library is being written along definite lines.

This book deals with each and every disease, in both the lay and technical names; therefore handy, for should one name “slip your mind” (how that can occur I do not know, but *you* use the term) the other will be also at hand. Each and every combination of diseases is also listed as to its combination cause.

The *analyses* herein explained resolves each effect quickly to cause. It is the knowing where to look for the cause that makes the analytical work of this school scientific, precise and exact. *The P. S. C.* rarely dwells upon superstitious diagnoses or prognoses long enough to remember its existence. This book is based on analyses; in fact, that is its purpose.

As much as I would like to I cannot take space to *demonstrate* the process through which these conclusions are reached. It is *conclusions* that we publish, *in this book*, not theories. To detail each and every case would have been an endless tale.

Everything had to have a beginning, and so it was with these conclusions. One by one a single disease, in many persons, was singled and just that one disease was adjusted for throughout the entire set of people. If one place after an extended trial did not deliver the results, then another place was taken, bearing in mind that it had to be the same in each in the second series of tests.

This table of *where* to adjust for certain conditions, specifically placed, is based upon this tedious, although interesting, years and years of labor that covered thousands of patients, and includes the reports of many graduates of this school, who have left here and continued along the lines of P. S. C. individual investigations and their reports have been sent to the author and have been compositively embodied herein. At this time we could not do better than to thank them collectively, although some of them have performed much labor and should be singled, yet this would be impossible in this book. I wish to again thank them all for the untiring zeal they have shown. I have tried to set them a pace (a point which I believe they concede) but if this be true, I must grant that they have been good followers. The bond of scientific research that has united this school to "its boys" is such as only exists between fellow sacrificers for a cause which could not be better than this.

This school has at all times aided its graduates to pursue this progressive work. We have sanctioned their truthful records and shattered their idols when wrong, but through it all we have endorsed much that was original with them and thus the good of the cause universally has been greatly added to. We have at all times felt that we have but *started them* into a grand and glorious work. There is no reason why they should not continue to do as we have done, *providing they do not deviate* from that straight and narrow path of specific, pure, unadulterated and philosophical Chiropractic which this school has so arduously fought for.

The above tests do not represent hurried conclusions or "*matter*" set together on the spur of the moment. It delineates the accumulations of years and records of thousands of patients, each of which has been carefully filed and a regulation basis established thereby.

This table represents many personal sacrifices upon the part of the author because of the singling of each disease and refusing to adjust at more than one place at one time.

To have done more would have been to confuse the thoughts or knowledge as to whether one subluxation adjusted did or did not get the results. To adjust two or more vertebræ in one person upon one day meant to cross the daily reports of benefits, thus that policy would have meant confusion and inaccuracy—a quality which this book does not contain.

If I could, at this date, suggest one common fault on the reports that have come to me it would be that "the boys" are in the field for the financial end of the investment. We have given them something to sell and they deliver it. This is but natural. They cannot afford (or at least do not) to sacrifice as we have done for the sake of the science. With forty or fifty patients daily, they must adjust at least six different places for as many diseases, hence the reports are that all get well, and did he not have the basic foundation supplied to him at this school he would not *know* which one caused any one particular effect. Thus the report that "such and such a disease comes from such and such a place" is confusing to

the person who has adjusted as per the individual adjustment plan.

I take it for granted that the reader has studied my definitions as listed in the forepart of Vol. 3 and thus understands why I should question the use of many words as herein ironically touched upon.

The brevity of this book is its beauty. It shows the simplicity of eluding symptoms and again places this science upon a basis never assumed by any other, for it is the first that *can* intelligently afford to ignore anything in that line and still find the cause of each and every symptom without so much as needing to know the effects. Causes are what he wants, finds and corrects. To find the cause it is not necessary to study effects. I accept the diagnostic words herein not because I look upon them as scientific, valuable or an addition to the Chiropractic nomenclature, but use them for the present generation. This work will thus aim to take the populace one step from the mire of superstition. At some future date I shall publish another work of this library and give you the method that the coming generations will analyze cause with *the meric system*.

The P. S. C., as the birthplace of Chiropractic, has had the largest possible clinic from which the many varied cases could be singled. The director of *The P. S. C.* clinic has had as high as 200 cases per day for months under his direct personal observation and in recent years never less than 50 and averaging 75 to 100 daily. With this record it can be seen that the class of patients will include almost every recognized disease; therefore, when that fact and the time that this school has been in existence and the almost endless reports that this school has had from its loyal graduates in the field are considered, it can be seen that no one is quite so capable of giving you facts as the author, nor any one is in quite so able a standpoint to dispute the facts herein contained.

To the friends of *The P. S. C.* and *The U. C. A.*, who financially have made this publishing a possibility, I can but say that my esteem is manifold and I can show no better acknowledgment than aiming to give you and the world something intellectually better in the future to pay for your liberality and altruism.

This book marks another era in the individual progress of this art, science and philosophy. In this presentation we again give something different than any science in the world. It cannot be duplicated unless the works of this book are plagiarized. No doubt this will be done in some measure, but not to the extent of boldly taking its entire contents nor usurping its entire ideas. This volume represents one of the side lines of development of new ideas advanced at *The P. S. C.* during the past few years. To establish the individuality further than represented in THE SCIENCE of CHIROPRACTIC, Vols. 1, 2, and 3, is the aim of Vol. 4.

B. J. PALMER, D. C., Ph.C.,
President *The Palmer School of Chiropractic*, "CHIROPRACTIC'S
FOUNDATION HEAD."

DAVENPORT, IOWA, U. S. A., 1908.

Causes Localized

GENERAL DISEASES.

GENERAL DISEASES THAT MUST BE ADJUSTED ACCORDING TO ZONE AFFECTED.

“General Diseases” implies diseased conditions which can be possible in any portion of the body—not that the disease is all over the body at one time, but the specific disease can be in only one portion of the body at one time. “Rheumatism” can be in any portion of a body, although usually localized in one for study; yet toothache can only be in one place.

Abscess—A combination of the following functions: Calorific (excess of), reparative (lack of). Serous circulation is frequently involved. The same combination exists for cancers, and pimples only in larger or less degrees.

Acne—Always adjusting local zone and K. P. combined.

Actinomyosis.

Acute and subacute articular rheumatism. See local zone.

Acromegaly.

Adenitis—According to location of gland.

Adipose-tissue in excess or lack of normal. Adjust according to locality.

Administration of Medicines—An appeal to the mythical God, Jupiter, based upon superstition and faith. Chiropractic replaces it with knowledge and results.

Allochiria—Pressure upon efferent brain fibres from the locality involved.

Amyotrophic paralysis.

Anasarca (in combination. See C. P. and K. P.).

Anaemia—That condition of collapsing of tissue cells anywhere in the body following the inability of innate intelligence to get through to tissue.

Aneurism.

Anidrosis—When general: C. P. and K. P. When local adjust the subluxation involving that zone.

Anthraxis.

Anthrax.

Arrest of Development—That condition wherein development forces have been created yet not oppressed through the physical medium.

Arrest of Development—May be local to one zone, side or several zones. Depends entirely upon the subluxations involved. Adjust according to zone.

Arteries—Conveyors of oxygen from lungs to tissues.

Arthralgia.

Arthritis deformans.

Arthropathis.

Ataxia, Locomotor—See At. P.-C. P. and P. P.

Atheroma (combination of local subluxation and K. P.).

Atrophy (according to location and region involved). See Atrophy under A. P.-C. P.-L. P. P.

Back—Acute or chronic stiffness of ; swelling in ; tenderness in ; "pain" in. Adjust according to dermamer or myomere involved.

Bacteria—Scavengers. In this respect offal must exist before parasites exist.

Bad Blood—An impossibility in a living body. See *Circulations, Serous and Blood* in *The Science of Chiropractic*, Vol. 2.

Blackheads—Local with K. P. See Blackheads, under M. C. P. C. P.-K. P.

Blister—An adaptation to a circumstance. Fever blister having for its purpose the same intents as the former. Innate uses the water pad as a nonconductor or reducer of heat.

Blood Poisoning—Another myth that is a fable without even a moral.

Body Lice—These are to the outside of body what microbes, parasites or germs are to the inside. Lice are there to eat bodily scavenger matter and did not in any sense create it.

Boils—See Boils, under U. C. P.-M. C. P.-L. C. P.-L. P. P. as examples.

Bone Aches—The mental recognition of functions abnormal in bones.

Bones—Diseases of ; development of ; nonunion of after fracture. See Bones, under L. P. P.

Cachexia.

Capricious appetite in pregnancy. One of the adaptations that Innate makes in demanding certain chemicals of which she is the only judge.

Capsulitis—According to location of capsules.

Carbuncle.

Catalepsy—Where local, adjust local subluxations.

Catarrh—Can be local in any organ that has a mucous membrane. See under the different zones.

Equation of cerebro-spinal meningitis.

Cerebro—At. P.

Spinal—C. P.

Cerebro-spinal—At. P. and C. P.

Hydro-cerebro meningitis—At. P. and K. P.

Hydro-cerebro-spinal meningitis—At. P. C. P. and K. P.

Chill—Excessive muscular rapid, alternating contractions and relaxations with the object of resisting some external abnormal damaging constituent.

Chill—A chill differs from a convulsion only in degree ; we are in a state of constant chill but adaptation takes place and we do not call it a chill because it isn't great enough. Let the same condition be intensified and the person has a "chill."

(A chill is purely adaptative—the attempt on the part of the body to overcome some condition; the body is not up to the standard of resisting cold or some acid, such as lemon juice—you may be warm and yet have a chill. According to the area involved, you should adjust.)

The chill defined in Vol. IV. is that condition wherein the body shakes. Another chill exists wherein the temperature of the body is sub-normal, thus inducing a chilliness of the body, or wherein the body feels the chilliness of the room, where it has not adapted itself to the conditions normally. This introduces the factor of a normal or abnormal calorific current in the body. This chill may be in combination with the other, or may be alone, or the other may be alone.

Chloasma—Where locally defined adjust specific sublaxations. See same under C. P. & K. P.

"Cold"—A misnomer. Pressure upon calorific nerves stimulates function; too much heat. "Excessive heat" would be better, for it describes what it is. "Catch a cold" would be truthful if you knew that that sublaxation existed, but some accident made *it* worse; therefore effects are more noticeable. No effects without a cause.

Collapse—That condition of the physical body where it is incapable of doing its duty. It is not mental—as long as the medium remains normal then the product is equivalent. You cannot have "mental collapse"; it is the *brain* which collapses.

Contractures—See M. C. P.-A. P.-S. P.-P. P.

Corns—Although not a "General Disease," yet soft corns on the ball of the foot may be and are occasionally traced to the lumbar. Adjust the toe joints for corns and bunions.

Constitutional—In all such one specific origin can always be found. General in appearance, but exact in the location of cause.

Constitutional Eruptions of the Skin—Adjust locally, where eruption is and in combination with K. P.

Crab Louse—One of the known external scavengers. They do not create but remove scavenger matter. Internal germs perform an equal service to the inside of man. Adjust the cause producing scavenger matter and lice of any form will not exist.

Cough—Four Kinds—Recognized by the depth from which they start the light high rasping cough of the throat, the lower or bronchii cough—the typical lung cough and the deep, low, stomach cough. See S. P. for throat and stomach coughs—A. P.-Lu. P. for balance.

Abnormal Crying and Laughing—Where abnormal in excess of or lack of locate the local cause and adjust.

Crusts—According to location.

Decreased Ability—Adjust wherever localized. See C. P.

Degeneracy—When localized adjust according to that zone.

Diseases of Ductless (?) Glands—K. P. and S. P.

Diseases of Digestive System—S. P. and P. P. for intestinal tract. K. P., C. P. and S. P. for many ductless (?) glands.

Diseases of Heart—H. P. on left side.
Diseases of Kidneys—K. P.
Diseases of Liver—Li. P. Right side.
Diseases of Gall Bladder—Li. P. Right side.
Diseases of Bile Ducts—Li. P. Right side.
Diseases of Muscles—According to locality.
Diseases of Nervous System—According to locality.
Diseases of Pericardium—H. P. Left side.
Diseases of Pharynx—S. P. Right side.
Diseases of Endocardium—H. P. Left side.
Diseases of Salivary Glands—S. P. Right side.
Diseases of Spleen—Spl. P. Left side.
Diseases of Thymus Gland—S. P. Right side.
Diseases of Thyroid—S. P. Right side.
Diseases of Tongue—S. P. Right side.
Diseases of Tonsils—S. P. Right side.
Diseases of Bowels—U. P. P.-P. P. or L. P. P.

Disinfection—A superstition based on lack of knowledge of the true cause of a single abnormal symptom. When that is known the former ceases to be a necessity to treat effects.

Dropsy—See under K. P.-A. P.-Lu. P.-L. P.-C. P.-H. P.-S. P.-P. P.-L. P. P.

Dry Tetter—Adjust the subluxation for zone involved and in combination with K. P. See K. P.

Dystrophy—If general, see C. P. If local, see A. P. S. P.-K. P.-L. P. P. for examples.

Empyema-articuli—According to what articulation is involved See also Li. P., Lu. P.

Eruptions—May be local or general. If general, adjust K. P. with C. P. If local adjust the subluxations transmitting mental impulses to that zone and K. P. See C. P. and K. P.

Eruptive Fevers—Adjust "spinal hot box" and K. P. See K. P.

Erysipelas—Adjust local subluxations in combination with K. P. See K. P.

Exanthemata—See eruptions.

Excretion—The organs of. Kidneys, bowels and skin.

Fatty Tumors—According to location, involving local subluxation and combination with K. P.

Expectoration—See cough.

"Female Weakness"—An excuse that has long been proffered for ignorance.

Fistula—A broad name used to designate discontinuities of the tissue. Adjust according to location.

Fracture—Ununited, inability to unite, suppurative splinters, etc., according to location.

Furuncles—According to location.

General Aching—As any ache or pain is but mental interpretation of abnormal functions we must conclude that this is a symptom of many conditions.

"Girdle Sensations" very often follow the paths of nerves emanating from foramina. In a large majority of cases pursuing a "girdle" form following adjustments.

Glands—All glandular tissue performs the function of Secretion, to thoroughly carry on its duty secretive materials must be taken to it, thus involving Serous Circulation. All glands are involved and become one of a series of links in this chain.

Gout—Acute, chronic, irregular, arthritis deformans suppressed where general. See C. P. and K. P.-M. C. P. A. P.-L. P. P.

Habits are diseases or adaptations thereto and will be considered under respective heads accordingly.

Headache—Four kinds with corresponding subluxations:

1. "Neuralgic" in fore and superior part of head—At. P.
2. "Nervous" in central of head, dull aching—M. C. P.
3. "Sick headache"—all over the head—S. P. on right side.
4. "Periodic"—Base of skull, full and "mean" feeling—

P. P.

Height—Where abnormally shortened by many inferior subluxations or subluxations producing curvatures and kindred conditions. Adjust subluxations and increase height.

Hemorrhage—Where general, C. P. If local, adjust likewise. See At. P.-M. C. P.-S. P.-C. P.-Lu. P.-A. P.-P. P.

Hemorrhagic Purpura—If general, C. P. If local, adjust accordingly. See At. P.-C. P.-Lu. P. and C. P.

Hyperaesthesia—Where general, C. P. If local, adjust accordingly.

Hyperalgesia—Is a purely mental elaboration of the status of peripheral abnormal conditions.

Hyperpyrexia—According to whether local as in the general run of "fevers" or the true type of general excessive heat. This condition is exceedingly rare, although supposed to be common. S. P.-Spl. P.-Li. P.-P. P.-K. P. In combination with K. P.

Hypersecretion—If general such as excessive urea and serum, as in sereodoema. See C. P.

Hypertrophy—General, involving any particular or all general tissues of muscles, of glands, according to location, and in combination with K. P. See K. P. and also A. P.-H. P.-C. P.-Spl. P.-P. P.-L. P. P.

Immobility—If general, one side or the other, C. P. See C. P.-A. P. and P. P.

Incoördination—A term used to express the lack of ease between the mental creation of life and its physical personification by expression in any instance commonly known as disease—diseases in any degree or character in any tissue.

Infancy—Diseases incident to, cerebral palsies of, hemiplegia of, would be determined by location of subluxation (this exact) in preference to waiting for symptoms to develop. Subluxations same as in adult.

Infant—Diseases of, rupture in, infantile paralysis, other diseases of, adjust the same as in adult.

Inflammation—Excessive heat—too much heat—more heat than is normal or necessary. C +.

Insects—Parasitic—Wherever decomposition of urea or serum is taking place, scavengers will be found. An Innate Intelligence adaptation and not a cause producer of a single decomposed cell.

Insulation—Those nerves leading from the Educated brain are insulated, the others are not.

Internal Hemorrhage—See Hemorrhage.

Intervals between Menstrual periods—the length of which is measured normally by Innate Intelligence.

Joint—Stiffness, swelling or pain in—Any union of bones in the body can be affected in any numberless combination of diseases. To enumerate diseases is outside the scope of this philosophy. To locate their cause is what must be analyzed.

Kyphosis—One of these combinations where a succession of vertebral subluxations exist. It may be cervical, dorsal, lumbar or sacral. The adjustment is at three points, highest, center and lowest. From those it may vary above or below. Steady work removes ankyloses and exostoses until normal movement is established.

Lactation and Sexual Functions—Coördination of; Chiropractic philosophy proves one source of power, one directing intelligence with two parts for two sets of organs with different functions at two different locations. Inharmony is impossible, providing that intelligence and power can reach its peripheral.

Lice—Body scavengers. See K. P.

Liver Spots—A misnomer. Brown spots are found with normal functioning livers, and vice versa.

Lordosis is very seldom found. There are rare cases and very difficult is the adjustment in each case, which must be specialized to each case. The author feels justified in not publishing the same.

Loss of Feeling—The inability for impression to reach the mind for interpretation. Adjust according to locality.

Malignant Pustules—These could be anywhere in a human body. The adjustment according to locality and in combination with K. P.

Marie's Disease—Acromegaly. See hypertrophy under this head.

Membrane is the tissue foundation of the body. Serous tissues come first in importance and quantity; mucous membrane is a division of the first. See also At. P.-M. C. P.-Spl. P.-S. P. and P. P. as examples.

Meningo-mycelocle—Spinal; can occur in any position to a great or less extent if local. This is one of the prenatal deformities that are considered in "*The Science of Chiropractic*," Vol. 2.

Middle Age—Diseases of: Experience and keen observation has shown that children have the same characteristic diseases as the youth or man, and the young man that of the adult. The

name may differ, yet all symptoms, effects are but variations, regardless of age; infant or old age, or any intermediate step.

Miosis—Inasmuch as pressure upon nerves, no matter when, can reoccur at any time, miosis would be of frequent occurrence with subluxations.

Mobility—Excess or lack of : Depends much upon the locality involved, through analysis.

Monoplegia—See M. C. P. and S. P. for examples.

Muscles—Atrophy and hypertrophy of, diseases of, pain in diseases of, rigid recti, paralysis of, arthritic, infantile progressive. See L. P. P.-S. P.-P. P. and A. P.

Muscular tissue—Amount and character : This depends upon the quantity and equality of current that flows through to tissue from the mind of the creation.

Muscular Cramp—Whether contraction be normal, excessive or the lack of it depends upon the amount of current expressing itself. See A. P.-S. P. and L. P. P. as examples.

Myositis—In this disease any muscle may be involved, according to locality and whether the flow of mental impulses are normal or not.

Myositis Ossificans—See myositis.

Myotonia—A condition, normal or abnormal, dependent entirely upon the quantity of mental impulses, expressed in the region under discussion. Adjust according to location.

Myxoedema—A rare disease. Thoroughly elaborated upon and discussed under "Serous Circulation," *The Science of Chiropractic*, Vol. 2.

Nationality—Influence of, upon disease : Nationality has *no* influence upon disease other than that the expressions of functions must be adapted to the habitant. A Swiss has mountains to climb, the plainsman has the broncho to ride, etc. Occupation and the adaptability thereto is the vital issue, regardless of nation. See *Occupations*.

Nerve—Nerves are mediums of transmission of Innate mental impulses from the brain to all tissues in the body. The only abnormality possible is lack of function. Composed of tissue, it is subject to all diseases as any other. Many misnomers exist that have been connected with nerves. No tissue is so abused or mutilated in books, literature and articles.

Nervous System—A title given to that aggregate of nerve fibrillæ that converge toward or radiate from the brain. The name given to a compilation of nerves after leaving the foramen magnum.

"Neuralgia"—"Nerve pain" ; Is another misnomer based upon the lack of knowledge of the true function of nerves, brain, mind, Innate. It will be used in forthcoming pages, but always quoted ; sometimes the true interpretation of what exists will be given. See also At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-C. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

"Neurasthenia"—Another misnomer based upon the superstition of the unlucky sympathetic reflex action. See At. P.

"Neuritis"—Nerves are tissue similar to any other, and receive functions accordingly. They are subject to the above abnormality as one function.

Nervousness—Another therapeutical misnomer which tells nothing. The individual having "Nervousness" cannot explain what he means when he uses the word. *The P. S. C.* supplants it with "Incoördination," which means the muscular movements are not in harmony with the mental creation of that act, hence undetermined and not positive movements of muscles. Nervousness is based around the superstitions, something that the nerves are supposed to be minus of. See "*Muscular Incoördination*" under M. C. P.

Nettle Rash—See *Eruptions*.

Non-Union of Bones After Fracture—Lack of reparative function. Adjust according to zone involved.

Neuroses—Any effect without a cause. See "*Neuroses*" in *Dunghlison*.

Numbness—This usually is so localized that its corresponding zone and subluxation can be easily found and corrected.

Obesity—Usually general. Adjust C. P. in combination with K. P. If local, adjust the vertebra subluxated in the zone in combination with K. P. See C. P. and K. P.

Occupations—See *Nationality*. The kind, quality and character of the "occupation" has much to do with the concussion of external force with the internal resistance, thus becomes the most important external factor (with the Chiropractor) as regards the causation of subluxations.

Oedema—Same as dropsy; if general, anasarca. See *Dropsy* under various localities.

Old Age—Diseases incident to, are similar to those of the youth or middle life. Innate principles are the same in one as well as all ages or shades of periods. The interference would be manifested accordingly.

Osteitis Deformans—A condition that could be in any part of the body. If local, adjust according to the zone involved.

Organs of Excretion—See K. P.-P. P. Sweating is a most important and necessary one. Adjust according to zone involved by local subluxation.

Osteopytes—Exostoses, like osteitis deformans in this manner.

Pachymeningitis—See *Meningitis*.

Pain is the mental interpretation of abnormal external conditions. Knowledge of location determines position of disease. Adjust subluxation in zone where disease is, then "pain" ceases.

Palpation of Spine—See Vol. 3 of *The Philosophy of Chiropractic* for local areas. The Chiropractor does not treat or palpate for diseases, but does analyze for the physical representative of causes, therefore considers nothing is gained by the former.

Palsies—See paralyzes under respective heads.

Paralysis—Loss or excess of *any* function, in any degree, combination or quality of tissue in the body. See also M. C. P.-C. P.-S. P.-Spl. P.-K. P.-P. P.-L. P. P.

Paralysis, Monoplegia—According to zone involved.

Parasites—Diseases are not due to the presence of scavengers, but on the contrary, health is partially maintained by the presence of these parasites. As tissue decays the scavengers appear; effects but not causes.

Paresis—See paralysis.

Percussion—A diagnostic feature. As Chiropractors do not diagnose symptoms, effects or any disease, he has no use for this line of work.

Periostitis—Acute or chronic. Adjust the subluxation from between which the nerves emit passing to the zone involved.

Poisons—Poisoning of any character depends upon the activity of serous circulation to receive and expel by way of kidneys anything that Innate may regard as poisoning. If the serous circulation be normal then its entrance will be as naught so far as doing damage is concerned. If in quantities, its signification is worth investigation. For the physiological action see "*The Science of Chiropractic*," Vol. 1, p. 119.

"Proud Flesh"—A disease with a cause. Adjust according to zone, or localized part thereof, that is involved.

Psoriasis can be of any portion of the body. Local zone in combination with K. P., usually of face. See M. C. P. and K. P.

Ptosis—See hernia.

Pustule—Can be local or general. See C. P. and K. P. If purely local, adjust in that zone in combination with K. P.

Rachitis—See C. P. and K. P. Usually the combination of the two mentioned.

Rashes—If local, adjust subluxation in combination with K. P. If general, see C. P. and K. P.

Reflex—A thing impossible to a living physical—where the Innate does not receive "messages," does not interpret their value and does not "reply" as her judgment thinks best, therefore a shadow of a substance that Chiropractors are not desiring to spend valuable time on.

Restlessness—Incoördination is common to all tissues in any degree in any particular form. What name you might give to a particular form according to location and degree depends upon the vividness of your imagination.

"Rheumatic Fever"—Fever in which pain is the mental interpretation. Some physical conditions become so excessive that pain in a recognized degree is a consequence. All disturbances of a calorific nature create abnormal impressions, hence *pain* in some degree is the consequence.

"Rheumatic Gout"—See "*Rheumatism*."

"Rheumatism"—A misnomer, many of which were, have been and are being coined to express unknown quantities. Incoördina-

tion applies equally as well here as in any other disease. See U. A. P.,-A. P. S. P.,-K. P.-U. P. P.,-P. P.,-L. P. P.,-C. P.

Rupture—A separation of tissue cells. Any organ or viscus can be involved. Adjust according to zone involved.

Saint Anthony's Fire—See Eruptions.

Salt Rheum—See Eruptions.

Scabs—*Scales*—See Eruptions.

Scleroderma—In combination with K. P. and locality.

Scoliosis—See Kyphosis and Lordosis. The direction varies but causes and manner of adjustment remain the same.

Seborrhoea—Involving serous circulation. See K. P.

Sense—Knowledge of all action or disturbances that occur at any place, due to normal or abnormal impressions existing following the functions of the efferent system of nerves.

Serous Circulation—A circulation of all that is liquids in the body. It has definite channels, adits and exits, etc., etc. For thorough description see other chapters in this volume.

Septicaemia—If serous circulation is performing its duty, excretion of useless liquids, then the above cannot exist.

Sex—Influence on disease; Mediums may vary in general shape or some local peculiarity, but so far as sex is concerned one is just as likely to sublaxation as the other.

Shock—The incoördination that exists following concussions of force. The internal resisting the external. These may be light or heavy.

Side—Pain in "Side" is used as vaguely as "Small of the Back." "Side" is anywhere from the head to feet. Adjust according to specific area.

Simple Continued Fever—Every tissue has its heat—such is subject to excessive or lack of normal impulses. Any tissue can be locally or generally subject to excessive heat.

Skin—One of the great emunctories for Serous Circulation. See C. P.-K. P. In all "Skin Diseases" adjust K. P. in combination.

Skin—See C. P.-K. P. and Li. P.

Skull—Unhealed fractures of.

Sloughing—The expression of Innate to rid the body of what was her product but is now a foreign matter for that body.

Spina Bifida—Prenatal. See *The Science of Chiropractic*, Vol. 2, subject "Embryology" for more thorough explanation.

Spinal and Cerebral Lesions—As all "lesions" are effects, the Chiropractor has nothing to do with them.

"Spinal Concussions"—The result of external forces coming in contact with the internal resistance, the point of union of the two forces is always greatest at some point along the spine.

Spine—Curvatures of. See Kyphosis, lordosis and scoliosis under this head.

Spinous Processes—The most important analytic feature to the Chiropractor. They are compasses that show the right or wrong way of functions.

Splanchnoptosis—See Li. P.-S. P.-Spl. P.-P. P.

Spondylitis—The calorific mental impulses to each vertebra issues from the foramina above the vertebra under discussion. A local subluxation might, and in many cases does, disfigure its shape. See *Spondylitis Deformans*.

Spondylitis Deformans—The abnormal condition which follows excessive heat in a vertebra which destroys chemical opportunities. Continued adjustments allow Innate to rebuild the vertebra.

The M. D.'s "Sprain" of the spine is the Chiropractor's subluxation. If distant, the nerves can, in the largest majority of cases, be traced to it.

Strawberry Tongue—One of the symptoms of scarlet fever.

Sympathetic Nervous System—Based upon superstition and while in vogue now it will not be in fifty years. It is unknown to *The P. S. C.* and is replaced with a direct brain cell to tissue cell nerve connection.

Sympathy—"By means unknown." See Dunglison's Dictionary and the lecture on this subject in *The Science of Chiropractic*, Vol. 2.

Symptom—Any function not being performed coördinately with its mental equivalent; symptoms are endless and but express conditions that are in no two alike and points as an index to cause which teaches the observant to adjust it, rather than treat the effects.

Tabes Dorsalis—See Locomotor Ataxia.

Tactile—Name given to tissues that are so constituted as to receive impressions which are transmitted to brain and there interpreted by the mind. If pressures are hindering this transmission then function (circuit) is not complete.

Taenia—See tapeworm S. P. and Spl. P.

Temperature—If excessive the Chiropractor looks for the "hot box" in the spine. Regardless of name or where located, it has one spot in the spine that is hotter than the rest, that is the physical representative of the cause of this excessive heat, whether local or general. This knowledge in each case is gained through palpation with the back of the bare hand on the spine, *not with a thermometer*. Adjustment locally restores normal combustion generally. *The P. S. C.* Chiropractor registers the degree of temperature by the highly developed sense of touch.

Temperature Sense—See temperature.

Tenderness—The interpretation that follows pressure or arises from abnormal tissues, after reaching the mind. If functions were always normal, tenderness would be unknown. See At. P.-Lu. P.-C. P.-P. P.-L. P. P. *Tenderness*—The interpretation that follows pressure, or of impressions arising from abnormal vibrations following abnormal function in abnormal tissue cells after reaching the mind.

Thermogenesis—The combination of materials forming heat as a product. Function entirely under the control of Innate Intelligence,

Thorax—See H. P. and Lu. P.

Throbbing—Sensation of; pain of; varies according to location. Adjust locally.

Thrombosis—The plugging of a blood vessel through the formation of a clot or thrombus.

Tic—Local spasms. Are found in any portion of the body—usually in face. See M. C. P.

Tightness—Sensation of. Impression existed following excessive contraction.

Tingling—Burning, numbness, etc. Impressions that follow various abnormal functions.

Tonic—A quantity, mentally or physically unknown in Chiropractic philosophy, therefore never used.

Traumatic Neurosis—See neuroses. Subluxations following concussions of forces during accidents could and do produce endless combinations of effects.

Tremor—This occurs in any tissue in a body. See incoördination.

Trophic Disturbances—Every time is dependent upon trophic mental impulses as to whether the tissue utilizes the materials deposited there for that purpose. See local subluxation and its zone.

Tuberculosis—See At. P. H. P.-Lu. P.-S. P.-Li. P.-K. P.-Spl. —.C. P.-U. P. P.-P. P.

Twitching Movements—Where local, adjust according to zone involved.

Urticaria—See local zone and K. P.

Vaccina—Pure, a pure lie.

Vaccination—A myth based on superstition and fostered by ignorance.

Variola—See Smallpox. P. 69.

Varioloid—A light attack of variola. See Variola and Smallpox.

Vein—Veins as well as arteries are subject to abnormal functions similar to the other tissues, but it ceases to be a damage when anastomosis or inosculation is considered. Adjust according to zone involved. For detailed enlightenment see "*Circulations, Serous and Blood*" in *The Science of Chiropractic*, Vol. 2.

Venous Distention—Adjust according to zone.

Verruca can be anywhere on epidermis. Adjust according to zone. See M. C. P. and A. P. as examples.

Weakness in any location, degree or character indicates a lack of expression of mental impulses. Adjust according to zone involved.

Weight—Strength does not recognize weight within its limits. The sensations following weakness.

Worms—Any kind, any place in the body are scavengers. The enlarged bacteria to the inside are what lice are to the outside. See Crab Louse.

Zone—This word is used frequently to indicate various layers, as it were. If the body is perpendicular then it can be divided into sections. Each pair of brain nerves has certain zones that it covers. See *The Philosophy of Chiropractic*, Vol. 3, for an extended description.

FIRST CERVICAL. At. P.

Abscess of Brain or Skull.

Abscess of Aural Meatus—*Acne* in this zone combined with K. P.

Analgesia—(Stupor) Aphasia.

Apoplexy.

Apraxia.

Aprosexia.

Ataxia—(Locomotor) In connection with P. P. and C. P. See C. P. and P. P.

Athetosis (Combination with C. P.).

Athymia.

Brain—Abscess of ; acute softening of ; diseases of ; substance of ; hydatids of ; inflammations of ; membranes of ; tumor of ; insanity of ; tuberculosis of ; hydrocephalus of (in combination with K.-P. See K. P.).

Bulb—(Medulla) Diseases of.

Buzzing of the ear.

Catalepsy (where general).

Catarrh of one or both ears.

Cerebro meningitis (if combined with C. P. cerebro spinal meningitis). See C. P.

Chorea—In combination with P. P. See same there.

Chronic dropsy of the brain (in combination with K. P.). See K. P.

Chronic cerebral meningitis.

Coma—Epileptic, apoplectic, hysterical. See same under K. P. and Lu. P.

Constipation Headache. (See P. P.)

Coprolalia.

Carphologia.

Craniotabes.

Deafness—See "Nervous."

Deafness from hardened ear wax.

Delirium—Melancholia. acute, active, wild, muttering, in fact, involving all forms of insanity.

Delusions.

Depression—Mental, etc.

Dipsomania in combination with S. P. and K. P. See S. P. and K. P.

"Downheartedness"—See Dullness.

Diseases of the ear.

Dizziness—See also M. C. P. and S. P.

Dreams—Wild, damaging, etc.

- Dropsy*—Hydrocephalous. In combination with K. P.
- Drowsiness*—Abnormal. (See K. P.)
- Drum* of the ear inflammation of.
- Dullness*—Mental. See also same under U. H. P.-Spl. P.-Lu. P.
- Dura Mater*—Cerebral inflammation of.
- Dysacousis*.
- Ear*—Abscess of meatus; pain of; discharges from; haematoma of; haemorrhage from; excessive or diminutive sizes of; "earache" of buzzing in; eczema of; granulation in; polypi of; running from; wax in.
- Echolalia*.
- Eclampsia*.
- Encephalitis*—Acute or chronic, with or without haemorrhage, exudation or suppuration.
- Encephalopathia*. %
- Encephalocele*.
- Epilepsy*—In combination with P. P. See P. P.; coma from; convulsions of; physical manifestations of.
- Excitement*—Abnormal; mental.
- Exudative Encephalitis*.
- Fontanels*—Prominent or bulging, sunken, large or delayed closure of.
- Haematoma Auris*.
- Hallucinations*.
- Head*—Abnormal fixity or retraction of; abnormal movement of; in acromegally; hydrocephalus; idiocy; nodding spasm of; rachitis of; pain of; excessive sweating of; tenderness in; etc.
- Headache*—"Neuralgic" (?) pain; sharp, stinging in character. See also M. C. P.-S. P.-P. P. General Diseases.
- Headlice*—A scavenger found upon those heads where decayed matter exists, not through lack of cleaning but because a cause exists which produces offal. Means may be used to eradicate them time and again, but once have the cause adjusted and then no headlice.
- Hearing*—See deafness.
- Heatstroke*—See Sunstroke.
- Hebetudo*.
- Hemicrania*.
- Haemorrhage*—Cerebral, intracranial from ear. See also M. C. P.-A. P.-Lu. P.-C. P.-S. P.-P. P.-K. P.
- Haemorrhage Encephalitis*—At. P. See also H. P.-Lu. P.-C. P. and general diseases.
- Hydatids*—Brain. At P. in combination with K. P. See Li. P.-Lu. P.-K. P.
- Hydrencephalocele*—In combination with K. P. See K. P.
- Hydrocephalus*—In combination with K. P. See K. P.
- Hyperacusis*—One or both sides.
- Hypochondriasis*.

Hysteria—Coma of; concussion of; headache of; crises of; traumatic.

Hystero Epilepsy.

Hysterogenic Zones.

Idiocy.

Illusions.

Inflammation of the brain or meningitis; of the drum; of the ear.

Insomnia—Usually at M. C. P. Sometimes here. (See M. C. P.)

Intellection—Disorders of.

Lethargy.

Lice—*Pediculus capitis*. In combination with Ax. P. and P. P. and K. P.

Lyssophobia.

Medulla—Diseases of.

Megalocephalic.

Megalomania.

Membrane—Mucous of ears. See also General Disease, M. C. P.-S. P.-Spl. P.-P. P.

Memory—Loss of.

Meningitis Cerebro—If combined with C. P., cerebro meningitis. See C. P.

Meningitis—Cerebro tubercular. See C. P.

Meningocele—Cerebral. In combination with K. P. See K. P. and C. P.

Mental Depression or Excitement.

Migraine—Hemicrania. One side or both.

Mind Blindness.

Mind Deafness.

Mind Anosmia.

Mind Ageusia.

Mind Atactilia.

Morphine Habit—In combination with S. P. See S. P.

Mydriasis—See also M. C. P.

Nephritic Headache—This may and may not be in combination with nephritis. At all times it exists as a separate disease. The cause of the headache or the nephritis could be adjusted independent of the other. The two manifesting at the same time is known as a "nephritic headache."

"Nervous" deafness.

"Neuralgia"—See General Diseases; cervico occipital. See also At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-C. P.-Spl. P.-U. P. P. P.-P.-L. P. P.

"Neurasthenia"—Headache and vertigo of. See General Diseases.

Nodes on skull. See P. P.

Nodding-Spasm.

Ocular Headache—The visual propensity is one function affected, does not exist as a causative factor. The headache thusly known is adjusted here. See S. P.

Ocular Vertigo—See Ocular headache.

Otorrhoea—One or both ears.

Paragraphia.

Paraphrasia.

Pia Mater—Cerebral; inflammation of. See C. P.

Pituitary Body—Any abnormality of one or more of its functions constitute a disease thereof.

Poli-encephalitis—Inferior or superior.

Polyp of the ear.

Pseudo Angina.

Physical Conditions. (Mental.)

Puerperal Convulsions—So named because they are more numerous and violent at this time. Adjust At. P. for such at any time.

Puerperal Mania—The same as puerperal convulsions.

Running from the ear.

Salaam Convulsions—See convulsions.

Scalp—Tenderness of.

Serous Meningitis—See K. P.

Somnambulism.

Somnolence.

Stupor.

Sunstroke—See also K. P. and Heatstroke.

Temper is only known when mediums are abnormal through which power has been transformed. Abnormal power that goes to the organ (brain) involved.

Temperate—See temper.

Tenderness of head, scalp. See also General Diseases, Lu. P.-C. P.-P. P.-L. P. P.

Throbbing in ear.

Torticollis—Condition of cervical fractures or subluxations. The former adapts in present form, the latter creates the various moves as it is known by.

Traumatic Hysteria—Dependent always upon the subluxation following traumatism.

Tuberculosis of brain; tuberculosis meningitis of brain. See also General Diseases.

Tumor of brain. See also U. P. P.-P. P. or L. P. P. and K. P.

Tympanitis.

Ulceration of head or face. In combination with K. P. See K. P.

Uterine Headaches—The same headache does exist without uterine troubles. Exists as one of a combination of symptoms. If present during uterine troubles adjust in combination with P. P. See P. P.

Vertigo—If of a cerebral type, minus other combinations. See also S. P.

Water on the brain. In combination with K. P. See K. P.

Wax—Ear, hardened.

SECOND CERVICAL. AX. P.

Acne in this zone combined with K. P.

Catarrh of nose is often adjusted here.

Convulsions—Epileptic, hysterical. See same under C. P.-P. P. and K. P.

Elephantiasis—Eyelids. See also M. C. P.-U. A. P.-A. P.-C. P.-S. P.-P. P.

Facial Paralysis—One side or both; local. See L. C. P. and C. P.

Facial Spasm—One side or both, local. See L. C. P.

Locomotor Ataxia—In combination with At. P.-K. P. and P. P.

Spasmodic Torticollis—Could be as a result of broken circuits of subluxations of any cervical.

Sweating of Head—The local serous circulation is controlled by the output of mental impulses passing outward at this point.

Wryneck—See torti-collis.

SECOND AND THIRD CERVICAL. U. C. P.

Acne in this zone with K. P.

Amourosis—Amblyopia.

Anosmia—(Loss of smell).

Boils of upper neck and face.

Catarrh—Nasal, acute or chronic.

Cheeks—Puffing of.

Contractures of muscles of neck. See A. P.-S. P.-P. P.

Cramps of muscles of neck! See U. A. P. L. C. P. A. P.-C. P.-S. P.-P. P.-L. P. P.

Erysipelas of face and head In combination with K. P. See U. A. P. and K. P.

Monoplegia—Hemianopsia. See General Diseases and S. P.

Mimic Spasm.

Nares and Nasal—Functions of; discharges; stenosis. See also M. C. P.

Ophthalmoplegia—See S. P.

Retropharyngeal abscess.

Sleeplessness—Insomnia.

THIRD, FOURTH AND FIFTH CERVICAL. M. C. P.

I want to emphasize the point that you adjust according to the zone involved. Instead of saying that the 4th Cervical causes a multitude of conditions, say that its currents control a certain zone and all the conditions which may become involved in that zone.

Acne of this zone combined with K. P.

Amaurosis—Amblyopia.

"*Anaemic*" headache. Aphosia.

Arrhythmia ("Nervousness"; muscular incoördination).

- Athritis*—Deformans of arms or any portion thereof.
- Astasia*.
- Asthma* with nasal catarrh. In combination with A. P. See A. P.
- Asthenopia*.
- Barber's Itch*—In combination with K. P. See K. P.
- Bleeding* from nose. See also Lu. P.-S. P.-K. P.- and P. P.
- Blindness*—Color, etc.
- Boils* of middle neck and some parts of the face.
- Catarrh* of head; nasal chambers. See also S. P.-Spl. P.-U. P. P.-P. P.-L. P. P.
- Cheeks*—Abnormal circumscribed redness of.
- Chicken Pox*—In combination with K. P.
- Chronic* nasal catarrh.
- Cold* in the head.
- Conjunctivitis*.
- Cornea*—Affections of; ulcers of; inflammation of. This as well as S. P. are involved in different cases. Tracings prove either may be the cause. See same under S. P.
- Coryza*.
- Dentition*—Too early; delayed; too soft or hard; brittle; chalky or difficult.
- Diplegia Facialis* on both sides. See C. P.
- Discharges* from the nose.
- Diseases* of eyesight.
- Diseases*—"Nervousness."
- Diseases* of the teeth.
- Dizziness*—See also At. P. and S. P.
- Epiphora*—See also K. P. and R. P.
- Epistaxis*—If on the right side adjust to that side, and vice-versa.
- Epithelioma* of eyelid. In combination with K. P. See K. P.
- Esophagus*—Occasionally the upper portions can be reached from this region.
- Eustachian Tubes*—Diseases of.
- Eye*—Inability to close; pain in; discharge from. See also S. P. and K. P.
- Eyesight*.
- Face*—Abnormal or lack of color of (in combination with K. P.); ecchymosis of (in combination with K. P.); flushing of; acromegaly of; facial hemiatrophy; osteitis deformans; myopathy; œdema or swelling of. See K. P.
- Facial* paralysis.
- Farsight*.
- Gout in neck*. See also A. P.-C. P.-L. P. P.-K. P.
- Gums*—Sponginess; ulceration of; bleeding from. See also K. P.
- Headache*—"Nervous." See also At. P.-S. P.-P. P. General Diseases.
- Hemianopia*.

Haemorrhage—retinal; nasal. See also At. P.-A. P.-Lu. P.-C. P.-S. P.-P. P.-K. P.

Herpes, Facial.

Hordeolum—Either eye; adjust towards side affected.

Hyperaesthesia—Retinal. See General Diseases and S. P.

Hyperasphresia—One or both sides.

Inflammation of the cornea; of the conjunctiva; of the iris (iritis); of the tear duct.

Influenza—In combination with C. P. and K. P. See C. P. and K. P.

Insomnia. (See At. P.)

Iridoplegia—Lack of adaptation to lights, etc.

Iris—Inflammation of.

Iritis—See also Inflammation and Iris.

Itching—See Fornication.

Jaw—Paralysis of; mortification or decomposition of.

Kakosmia.

Lachrymation—Either or both eyes.

Lagopythalmos—Either one or both eyelids in either or both eyes.

La Grippe—See Influenza.

Lockjaw.

Lupus—One or both sides.

Malar Bone—Tenderness of, etc.

Measles—In combination with K. P. See K. P.

Membrane—Mucus of nose. See also At. P.-S. P.-Spl. P.-P. P. and General Diseases.

Mortification of the jaw.

Mydriasis—See also At. P.

Muscular Incoördination—*Myopia*. Commonly known among the laity and superstitious reasoners as one form of "Nervousness." Where general, adjust here. If localized, adjust accordingly.

Nares and Nasal—See also U. Cer. P.

Neck—Rigidity of; tenderness on; general condition of.

"Nervous Prostration"—As all "prostration" is incapability of function in more or less of the body, and function depends upon power, it is obvious that an absence is death, a diminishment is "Prostration." The power is mental, not "nervous." *Conclusion:* Prostration of the physical because of the lack of the mental. *Moral:* Do not use misnomers. Patients commonly known as "nervous" are adjusted here.

"Neuralgia"—See General Diseases, tic douloureux. See also At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-C. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

Nose—Discharges from; diseases of; pain of; regurgitation of fluids through; abnormal shape, size, color; ulceration of; stenosis of catarrh of; itching of; swollen; bleeding from; etc.

Optic Atrophy.

Ozaena.

Palsies of face. See P. P. and A. P.

Paralysis—Jaw muscles of face. See General Diseases. Also M. C. P.-C. P.-S. P.-Spl. P.-K. P.-P. P.-L. P. P.

Parosmia.

Photophobia.

Polyp of the nose.

Psoriasis of face. In combination with K. P. See K. P. and General Diseases.

Puffing Cheeks.

Pupil—Abnormally contracted, dilated, lack of response to accommodation, lack of response to light, etc., on one side or both.

Regurgitation of fluids through the nose. See also H. P.-S. P. and Lu. P.

Rhinitis—acute, atrophic, hypertrophic or chronic.

Risus sardonicus.

Scarlet Fever—In combination with K. P. & C. P. See K. P. and C. P.

Screw—Driver teeth.

Sight—Weak.

Sleeplessness—See Insomnia.

Smallpox—In combination with K. P. See K. P.

Smell—Disturbances of the sense of.

Sneezing—Continued, etc.

Sordes—In combination with K. P. See K. P.

Speech—Alterations in manner of; normal mechanism of. These organs get their mental impulse supply through 5-6 cervical and S. P. Sometimes it is one and sometimes the opposite. Palpation and nerve tracing make the decision accurate. See S. P.

Sputum—If formed in nasal passages adjust here. See also Lu. P. and S. P.

Stenosis—Nasal. See also H. P.-S. P.

Strabismus—See also S. P.

Stye—One side or both.

Subconjunctival Haemorrhage.

Sycosis.

Tears—Flowing of; one or both sides.

Teeth—Eruption of; "grinding" of; abscess of roots, gums, etc.; notched, dentated or decayed, "screwdriver;" chattering of; etc.

Teething should be accompanied without pain or excessive heat; if there is; adjust cause.

Tetanus—Trismus; one or both sides.

Tic douloureux.

Tic—Where of face.

Tophi on ear.

Trismus—See Tetanus.

Typhoid Fever—See C. P. and P. P.

Verruca on face or neck. See also General Diseases and A. P.

Voice—Nasal.

Wakefulness—Insomnia.

Xanthelasma of eyelids.

FIFTH AND SIXTH CERVICAL. L. C. P. OR U. A. P.

Acne in this zone combined with K. P.

Arm—Inability to move. See A. P.

Armpit—Tenderness of; excessive perspiration of. See A. P.

Asthma (where very high).

Boils of lower portion of neck or upper shoulders.

Bronchi—Obstruction of; bronchiectasis; bronchitis, acute or chronic of; broncho-pneumonia; bronchorrhoea, where the upper zone is involved.

Choking attacks; occasionally upper throat is reached by adjustment here. See also S. P.

Chronic rheumatism of shoulders.

Clavicles—Swelling on, above, below or of, in any portion or the opposite; depletion of, above or below, etc. See same under U. H. P.

Coldness of Hands—See same under A. P.

Cough—Bronchial; if upper, see A. P.-Lu. P. and S. P. SPL. P. and General Diseases.

Cramps—Of hands or writer's cramp o farms. See U. Cer. P.-A. P.-C. P.-S. P.-P. P.-L. P. P.

Dyspnoea—Where confined to a superior bronchial zone. See also L. H. P. and Lu. P.

Elephantiasis—Hands or forearms or portions thereof. See also Ax. P.-M. C. P.-A. P.-C. P.-S. P.-P. P.

Erysipelas—Upper shoulder and arm regions. In combination with K. P. See U. C. P.-A. P.-K. P.

Facial paralysis; one side or both; local. See also Ax. P. and C. P.

Facial spasms; one side or both; local. See also Ax. P.

Felon—See also A. P.

Hand—Atrophy of claws; arthritis deformans; spade; coldness of; see also A. P.

Hand—Excessive sweating urea of. See also K. P. and A. P.

Handwriting, defects in. See also A. P.

Hay Asthma—In combination with A. P. See A. P.

Hay Fever—See also A. P.

Humerus—Enlargement, swelling, pain of, atrophy of, exostoses on, fractures unhealed, etc., in superior zones of arm. See also A. P.

Joint—Shoulder—stiffness and pain in. See A. P.-U. P. P.-P. P.-L. P. P. and General Diseases.

Larynx—Affections of catarrh of, tumors of. Although not as a general rule to be found here but occasionally. See S. P.

Mouth—Diseases of. The minority of cases have subluxation at this place. This localization holds good only in rare cases. See S. P. and K. P.

Myoclonia—Of upper arms. See also A. P.-P. P.

"Neuralgia"—See General Diseases—cervico bracial superior zone. See also At. P.-M. C. P.-A. P.-Lu. P.-C. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

Obstructions—Bronchial, acute or chronic. See Spl. P.-Li. P.

Radius—Enlargements of, osteitis of, osteomalacia, eburnation of, etc., etc.

"Rheumatism"—See General Diseases. Shoulder muscles or joint of. See also U. A. P.-A. P.-S. P.-K. P.-U. P. P.-P. P.-L. P. P.-C. P.

Shoulder—Stiffness in and pain of, drooping of.

Sterno mastoids—Abnormal functions of.

Stiffness of shoulder joint.

Throat—Occasionally all that are usually found at S. P. will be traced to here alone or in combination with S. P.

FIRST AND SECOND DORSAL—A. P.-U. H. P.

Acne in this cone combined with K. P. Regurgitation of the heart.

Aorta—Aneurism of.

Arm—Miscellaneous signs and symptoms connected with. See U. A. P.

Armpit—Tenderness of. Excessive perspiration of; see U. A. P.

Arrhythmia cordis (irregular rhythm of heart.)

Asthma—(Bronchial, "hay"). See hay Asthma.

Asthma—With nasal catarrh. In combination with M. C. P. See M. C. P.

Atrophy—Of arm, one or both.

Breathing—Difficult, painful, rapid, or bronchii. See also Lu. P.

Bronchi—Same as described under "Bronchi" in U. A. P., only this would be lower zone.

Bronchitis—Acute or chronic.

Cardia—Spasm of.

Cardio—Pulmonary murmur of, if high. (See the same under U. Lu. P.)

Chest—Pain in; distention of tissue of, œdema of, unilateral or localized swellings or prominences of. See "Chest" under Lu. P.

Chronic—Rheumatism of arms.

Clavicle—Same as described under L. C. P., only lower zones.

Claw Hand—Contractured muscles, etc.

Coldness of Hands—In combination with K. P. See same under U. A. P. and L. P. P.-C. P. and K. P.

Coldness of Hands—Where hand is normally moist, A. P. alone.

Coldness of Hands—Where wet, in combination with K. P.—kidneys not working fast enough.

Coldness of Hands—In combination with K. P. where hands are scaly, kidneys working too fast. See K. P.

Cough—Bronchial Lower zone than found with U. A. P. See U. A. P.-Lu. P. and S. P. Spl. P., also General Diseases.

Cramps—Of hands, fingers or muscles of arms. See U. Cer. P.-U. A. P.-C. P.-S. P.-P. P.-L. P. P.

Dilatation of heart. See also L. H. P.

Discases of the heart.

Dullness—Cardiac. See also under At. P.-Spl. P.-Lu. P.

Dyspnœa—Where confined to the true bronchial zone. See also U. A. P. and Lu. P.

Dystrophies—If confined to one or both arms or portions thereof. See S. P.-K. P.-L. P. P.-C. P.

Elephantiasis—Arms or portions thereof. See also Ax. P.-M. C. P.-C. P.-S. P.-P. P.

Erysipelas—Lower arms. In combination with K. P. See U. C. P.-U. A. P.-K. P.

Felon—(See also U. A. P.). If the combination of functions were the same, I would say a felon could occur any place, but would probably be called a boil or a carbuncle. When we have a growth inside the body wall we usually call it a tumor; a tumor of the thyroid gland you would call a goiter—when you get the same condition some place else you call it another name.

Finger Nails—Wavy, stunted growth of.

Fingers—Blue or waxy, clubbing of, distortion of, cramped, gouty.

Gout—In arms, M. C. P.-C. P.-L. P. P.-K. P.

Hand—Same as U. A. P. See U. A. P. and K. P.

Handwriting, defects in. See also U. A. P.

Hay Asthma—In combination with M. C. P. See M. C. P.

Hay Fever—See also U. A. P.

Heart—Aneurism, dilatation of, diseases of, displaced, fatty, fibroid, hypertrophy, "nervousness" of, pain of, rupture of, organic diseases of, palpitation of, etc. On left side.

Haemorrhage—Broncho pulmonary, the bronchial portion. See also At. P.-M. C. P. Lu. P.-C. P.-S. P. P. P.-K. P.

Humerus—Same as under U. A. P. only lower zones. See U. A. P.

Hydrothorax—If of a high zone, in combination with K. P. See also K. P.-Lu. P. and Li. P.

Hypertrophy—of finger nails. In combination with K. P. See K. P. and also General Diseases. H. P.-C. P.-Spl. P.-P. P.-L. P. P.

Hypertrophy—Cardiac, of auricles in combination with K. P. See also K. P. and General Diseases. A. P.-C. P.-Spl. P.-P. P.-L. P. P.

Immobility—As of arms in local paralysis. See General Diseases, also C. P. and P. P.

Ineffectual systole, or diastole.

Joint—Elbow and wrist, stiffness and pain in. See also General Diseases U. A. P.-U. P. P.-P. P.-L. P. P.

Laryngismus stridulus.

Megalocheirous.

Muscles—Atrophy, paralysis or hypertrophy of hand of. See General Diseases, S. P.-P. P.-L. P. P.

Muscular Cramps—Hands and fingers. See also General Diseases, S. P. and L. P. P.

Myocarditis—

Myoclonia—Of lower arms. See also U. A. P. and P. P.

Nails—Diseases of, deformity of, for fingers. See also L. P. P.

"Neuralgia"—See General Diseases, cervico brachial, if of a low zone. See also At. P.-M. C. P.-U. A. P.-Lu. P.-C. P. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

Onychia—Heart. See also Lu. P.-S. P.

Palsies—Peripheral, of arms.

"Rheumatism"—See General Diseases, elbow or wrist, muscles, joints, ligaments or tendons of. See also U. A. P.-S. P.-K. P.-U. P. P.-P. P.-L. P. P.-C. P.

Rose Cold—See Hay Fever.

Sternum—Superior portion of, disease of. See also Lu. P.

Swelling—Of hands, or arms in combination with K. P. See K. P.

Thorax—See Lu. P. This might be involved, but a higher zone.

Thrills—Cardiac, hydatid, etc.

Trachea—Displacement of.

Tracheal tugging.

Tuberculosis—Of pericardium. See also General Diseases.

Tumors—Of Hand. See also Lu. P. and P. P.

Verruca—On arms, upper shoulders, or hands. See also General Diseases and M. C. P.

Wrist—Drop; represents a degree of paralysis; can be in one or both sides—adjust according.

Writer's Cramp—A condition similar to wrist drop. Adjust the same for either.

SECOND, THIRD, FOURTH DORSAL.

L. H. P. or Lu. P.

Abscesses of lungs, breasts. See also Li. P. and P. P.

Acne in this zone combined with K. P.

Affections of the lungs.

Aneurism of aorta.

Atelectasis (pulmonary).

Bleeding—In consumption. See also M. C. P.-S. P.-K. P.-P. P.

Bradycardia—

Breast—"Hysterical" or pangs of, tumors of, cancers of, lack of lacteal secretion, excretion or development of, before, during or following pregnancy, pains in, swelling of, abscess of, etc.

Breathing—Difficult, painful, rapid. See also A. P.

Breast Bone—Pain of.

Carpo—Pedal spasm (in combination with S. P.-)

Cardio—Pulmonary murmur of, if low.

Cavities in lungs, following abscesses, etc., or depletion of cellular tissue in tuberculosis.

Chaps—Of the nipples.

Chest—Barrel shaped, deformities of; pain of; chicken breast, pigeon breast and funnel chest; also dropsy of; same as described under U. H. P. This zone would be lower.

Chronic—Lung fever.

"*Cold*" on the chest.

Coma—Gas poisoning. See same under At. P.-K. P.

Cough—Lung such as tuberculosis. See U. A. P.-A. P. S. P.-Spl. P.

Crepitant rale.

Dextro cardia—As in prolapsus, etc.

Dilatation of heart. See also U. H. P.

Diseases—Of lungs.

Diseases—Of chest.

Dropsy—Cardiac—in combination with K. P.

Dropsy—Hydrothorax—In combination with K. P.

Dropsy—Oedema. Pulmonum in combination with K. P.

Drying—Of milk in breasts.

Dullness—Over lung. See also At. P.-U. H. P.-Spl. P.

Dyspnœa—Lungs. See also U. A. P. and L. H. P.

Emphysema.

Emphyema—Pleural. See also "General Diseases" and Li. P.

Endocarditis—Chronic, malignant, or simple.

Enlargement—Of the heart.

Expansion—Chest, deficient respiration, excess respiratory.

Expiration—Prolonged.

Fatty Heart.

Gangrene of lung.

Gland, Mammary—Tuberculosis of; cancers, tumors of. See S. P.-Spl. P.-L. P. P.

Haemopericardium—of heart.

Haemothorax—Of chest. See also Li. P.

Haemoptysis.

Haemorrhage—Broncho pulmonary, the pulmonary portion. See also at P.-M. C. P.-A. P.-C. P.-S. P.-P. P.-K. P.

Haemorrhagic pericarditis—H. P. See also At. P.-H. P.-C. P. and General Diseases.

Hoarseness—Pharynx. (L. H. P.) See also S. P.

Hoarseness—Larynx. (Lu. P.) See also S. P.

Hydatids of lungs—Pleura. In combination with K. P. See K. P.

Hydrothorax—If of a medium zone, from superior to inferior in combination with K. P. See K. P. also U. H. P. and Li. P.

Inflammation—Of the lungs.

Intercostal "Neuralgia," if of a high zone. See L. P.

Intercostal spaces—If bulging or retraction of, in high zone. See Li. P.-C. P.-S. and Spl. P.

Lobar pneumonia.

Lactation—Lack of; excess of; other diseases of. See General Diseases.

Lungs—Abscess of; hydatids of; gangrene of; growths in; miliary tuberculosis of; diseases of; pain of; phthisis, acute or chronic, syphilis of; hæmorrhages from; lung stones, etc.

Mastalgia.

Mastatrophia.

Mastodynia.

Mastodynia—*Polygala.*

Mastoiditis.

Mediastinal Abscess—Inflammation of; tumors of; etc.

Mediastino pericarditis.

Mediastinum—Any disease of; locally defined.

Megalocardia.

Milk fever.

Mitral incompetency, stosis, pulse of, etc.

Murmurs—Abnormal of heart.

Myoidema—Of lungs.

"Neuralgia"—See General Diseases, mammary and intercostal if of a superior zone. See also At. P.-M C. P.-U. A. P.-A. P.-C. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

Nipple—Diseases of; one side or both.

Oppression—Chest.

"Organic Heart Disease."

Organs of Respiration—Diseases of.

Orthopnoea.

Palpitation of heart—Left side.

Pectoriloquy.

Pericardial cavity—Puncture of; effusion in; friction of.

Pericarditis—Acute, chronic, hemorrhage, local or general, purulent.

Pericardium—Diseases of; tuberculosis of.

Phthisical chest.

Phthisis—Acute or chronic pulmonary.

Pigeon Breast.

Pleura—Disease of; hydatids of; new growths of; pain of in disease; tuberculosis of.

Pleural effusions.

Pleurisy—Acute, chronic, encysted, hæmorrhagic, interlobar, purulent, tuberculosis.

Pleurodynia—Not accurately named—If of an upper zone on one side or the other. See Li. P. and C. P.

Pleuropneumonia.

Pneumonia—Acute or chronic, interstitial, lobar, etc.

Pneumopericardium.

Pneumothorax.

Pulmonary atelectasis.

Pulmonary incompetence.

Pulmonary stenosis.

Pulmonary consumption.

Pulse—Decreased frequency of; increased frequency, where not the result of adaptation, but abnormal function—intermittent or irregular—stenosis, aneurism, etc.

Pus—In the chest.

Pyopneumothorax.

Quality of mother's milk.

Regurgitation—Aortic, tricuspid. See also M. C. P. and S. P.

Regurgitation—Pulmonary. See also M. C. P. and S. P.

Resonance—Pulmonary.

Respiratory center.

Respiration, sighing.

Respiratory expansion—Lack of.

Respiratory system—Lungs of; diseases of.

Shingles (Herpes Zoster).

Sighing—Where continued or abnormal.

Smothering—Of lungs.

Sore Nipples—One or both sides.

Sputum—If formed in lungs adjust here. See also M. C. P. and S. P.

Stenocardia.

Stenosis—Aortic, mitral, tricuspid. See also M. C. P.-S. P.

Stenosis—Pulmonary. See also M. C. P.-S. P.

Sternum—Lower portion of; diseases of. See also H. P.

Streptococcus pneumonia—Scavenger found in pneumonia when progressed far enough to form an exudate.

Systole—Ineffectual or abnormal in any character.

Tachycardia.

Tenderness—Of thorax; zone including those organs. See also General Diseases, At. P.-C. P.-P. P.-L. P. P.

Thorax—See General Diseases. Principal viscera are heart and lungs. Bilateral deformities of; oedema of; tenderness of; unilateral contradiction of; unilateral deformities of. See U. H. P.

Tricuspid incompetency—(Regurgitation) incompetence and stenosis, direct effect of, upon heart.

Tuberculosis—Acute or chronic of lungs; pulmonary phthisis; of mammary glands; of pleura. See General Diseases.

Tumors—Of chest. See also A. P. and P. P.

Ulna—Swellings or nodes of ; osteomalacia of ; any other disease of ; etc.

Valves—Abnormalities of ; of heart.

Valvular lesions (effects, symptoms), acute or chronic, defects, broken compensation.

Ventricle—Left or right hypertrophy of.

FOURTH, FIFTH DORSAL. Li P.

Abscess of liver. See also Lu. P. and P. P.

Acne in this zone combined with K. P.

Acute or chronic inflammation of the liver.

Bile duct—Impacted gallstones in ; structure of ; inflammation of ; prolapsus of ; cystic of ; acute catarrh of ; chronic catarrh of ; stenosis of ; obstruction of ; suppuration of.

"Biliousness"—In combination with pressure on left side of S. P.

"Bilious" Colic.

"Bilious" Fever.

"Bilious Headache"—In combination with pressures on both sides of S. P.

Carcinoma of gall bladder.

Catarrh of liver.

Cholangitis—Acute or chronic catarrh of ; suppuration of.

Cholelithiasis—Acute or chronic.

Chronic—Inflammation of the liver.

Cirrhosis of the liver.

Clay colored stools.

Colic—Hydatid. See also Spl. P.-K. P.-U. P. P.-P. P.

Diseases—Of the liver.

Dropsy—Hepatic. In combination with K. P.

Empyema—Gall bladder. See also Lu. P. and "General Diseases."

Funnel chest.

Gall Bladder—Acute or chronic inflammation of ; carcinoma of ; dropsy of ; empyema of ; pain of ; gallstone impacted in cystic duct ; all diseases of.

Gallstones—Gathering matter for ; passage of, etc.

Green Liver.

Green stools.

Haemothorax—If of a lower zone of chest than L. H. P. See also Lu. P.

Hepatoptosis.

Hydatid Tumors—Of liver. In combination with K. P. See also At. P.-Lu. P.-K. P.

Hydrothorax—If of a low zone, in combination with K. P. See K. P., also U. H. P. and Lu. P.

Hypersecretion—Bile, in combination with K. P. See K. P., also C. P.-S. P.-Spl. P.-Li. P.-K. P.-P. P.

Icterus—In combination with K. P. See K. P.

Intercostal spaces—If lower zone than Lu. P. See also Lu. P.-C. P.-S. P. and Spl. P.

Intercostal "Neuralgia"—See also Lu. P.

Jaundice—In combination with K. P. See K. P.

Liver—Abnormal consistence or roughness of, abscess of; acute inflammation of; atrophy of; carcinoma of; cirrhosis of; enlargement of; fatty, gin, hydatid tumors of; hyperaemia, irregular shape of; movable or floating; pain of; syphilis of; tuberculosis of, etc. The liver is a gland and all glands secrete from and secrete into serous circulation. We look also to the controller K. P., for general condition. See also K. P.

Liver—Pains over. The zone would still remain the same; therefore the adjustment for a region "over" would still be the same.

Obstruction—Gallstones in gall duct. See also A. P. and Spl. P.

Passage of Gallstones—Difficult, "painful."

Perihepatitis.

Pleurodynia—If of a lower zone than Lu. P. See Lu. P. and C. P.

Splanchnoptosis—Liver. See also General Diseases, S. P.-Spl. P.-K. P.-P. P.

Spleen and Liver—Combined enlargement of; in combination with similar functions at Spl. P. See Spl. P.

Tuberculosis—Acute or chronic of liver.

FIFTH, SIXTH DORSAL. C. P.

Acne in this zone combined with K. P.

Anaemia.

Anasarca—In combination with K. P. See K. P.

Asthmatic paralysis.

Ataxia—(Locomotor) in connection with At. P. and P. P. See At. P. and P. P.

Athetosis—Combination with At. P.

Atrophy—Following hemiplegia.

Blackheads—In combination with K. P., where the back or chest is involved.

Chills—If general.

Chloasma—If general adujst in combination with K. P. See same under "General Diseases."

Chronic—"Nervous Exhaustion."

Cold or Chilly sensations where general. In combination with K. P. See same under A. P.-U. A. P.-C. P. and L. P. P.

Constitutional Diseases—Many have this as a central point from which nerves radiate.

Convulsions—Where general. See same under Ax. P.-C. P.-K and P. P.

Cramps—Such as swimmers. See U. Cer. P.-U. A. P.-U. P.-S. P.-P. P.-L. P. P.

Crossed paralysis.

Debiles.—Where general.

Decreased mobility—Where superficially general. See “General Diseases.”

Degeneracy—Where generally superficial. See “General Diseases.”

Diplegia—On both sides. See M. C. P.

Diseases—Some of which have nerves from here that take in several dermamerres, so far as same functions are concerned.

Dropsy—Anasarca. In combination with K. P.

Dropsy—Arachnoid. General, in combination with K. P.

Dropsy—Hydrathrosis. Local subluxation in combination with K. P.

Dura mater—Spinal Inflammation of.

Dystrophies—If generally more or less. See also A. P.-S. P.-K. P. and L. P. P.-P. P.

Elephantiasis—If general See also Ax. P.-M. C. P.-U. A. P.-A. P.-C. P.-S. P.-P. P.

Eruptions—If general adjust here and K. P. See same under “General Diseases” and K. P.

Facial paralysis—One side of entire face as in hemiplegia. See also Ax. P.-L. C. P.

Gout in Back—See also M. C. P.-A. P.-L. P. P. and K. P.

Gout—Where universally general adjust C. P. in combination with K. P.

Heat rash—Where general. In combination with K. P. See also K. P.

Hemianesthesia—On either side.

Hemiplegia—Crossed infantile.

Hemiplegia—On either side. Adult.

Haemorrhage—General on skin or spinal. See also At. P.-M. C. P.-A. P.-Lu. P.-S. P.-P. P.-K. P.

Haemorrhagic Purpura—If general; if local see At. P.-H. P.-Lu. P. as examples.

Hypersecretion—Where general and if a serum, as in serodoe-ma or urea as in dropsy in combination with K. P. See K. P.-S. P.-Spl. P.-Li. P.-K. P.-P. P.

Hypertrophy—General. In combination with K. P. See also A. P.-H. P.-General Diseases-Spl. P.-P. P.-L. P. P.

Immobility—As in hemiplegia, one side or the other. See General Diseases, also A. P. and P. P.

Influenza—In combination with M. C. P. and K. P.

Intercostal spaces—If a lower zone than Li. P. See also Lu. P.-Li. P.-S. P. and Spl. P.

Lice—Pediculus corporis, in combination with K. P. See At. P.-K. P. and P. P.

Meningitis—Spinal. If combined with At. P.-cerebro spinal meningitis. See At. P.

Meningitis—External or internal spinal. See At. P.

Meningocele—External or internal spinal. See At. P. In combination with K. P.

Meningo-myelitis—Of general cord.

"Nervous" Prostration—See M. C. P.

"Neuralgia"—Intercostal of an intermediate zone. See also At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

Obesity—If general, in combination with K. P. See General Diseases and K. P.

Paralysis—Hemiplegia, either side. See General Diseases, also M. C. P.-S. P. Spl. P.-K. P.-P. P.-L. P. P.

Paramyoclonus multiplex.

Pia mater—Spinal, acute or chronic inflammation of. See also At. P.

Pleurodynia—If of a lower zone than Li. P. See Lu. P. and Li. P.

Polio-myelitis—Anterior or posterior, superior or inferior, acute or chronic.

Pustle—If general, in combination with K. P. See K. P. and General Diseases.

Rachitis—Rachitis, rickets. In combination with K. P. See General Diseases and K. P.

"Rheumatism"—General, of any character. See General Diseases, also U. A. P.-A. P.-S. P.-K. P.-U. P. P.-P. P.-L. P. P.

Scarlet Fever—In combination with K. P. and M. C. P. See K. P. and M. C. P.

Seborrhoea—If general, in combination with K. P.

Skin—Where abnormal generally in color, emphysema of haemorrhage of urea or serum as in "serodoema," excessive or lack of moisture of, etc. If purely local then adjust vertebra zone. See also General Diseases and K. P.

Spinal Meninges—In flammation of; external or internal.

Spinal meningitis.

Tenderness—Of dorsal of back. See also General Diseases, At. P.-Lu. P.-P. P.-L. P. P.

Tuberculosis—Tuberculosis meningitis of spinal cord. See General Diseases.

Typhoid Fever—The general excessive heat has its location at this place. In combination with P. P. See P. P. and M. C. P.

FIFTH, SIXTH, SEVENTH DORSAL. S. P.

Achylia gastrica—Acoria.

Acne in this zone combined with K. P.

Acute catarrh of the larynx.

Adenoids of larynx.

Affections of the larynx.

- Ageusia*—Diminution or loss of taste.
Anachonchylism—Gargling.
Anarthria—Stammering.
Angina—Of any part of esophagus.
Anisocoria.
Anorexia.
Aphasia—See Loss of Speech.
Aphthae—Where confined to regions above pylorus in intestinal tract.
Abnormalities of appetite.
Appetite—Voracious.
"Bad tastes."
Baldness—In combination with K. P. See K. P.
Belching of gases from stomach.
"Biliousness"—In combination with Li. P.
"Bilious Headaches"—Both sides. In combination with Li. P.
Bleeding—From the stomach or throat. See also M. C. P.-Lu. P.-K. P. and P. P.
Buccal Cavity—Eruptions, ulcers and sloughs in; petechial and pigmented spots in; cold sores in; inflamed mucous membrane of.
Boulimia.
Cancer of stomach.
Carcinoma of stomach.
"Canker" sore mouth.
Carpo—Pedal spasm; in combination with U. Lu. P.
Catarrh of buccal cavity, larynx, esophagus, catarrhal gastritis, acute or chronic. See also M. C. P.-Spl. P.-U. P. P.-P. L. P. P.
Cestodes—Stomach.
"Child Crowing"—If stomach or throat muscles contract abnormally. See same under Spl. P.
Choking Attacks—The throat is primarily the organ involved. See also L. C. P.
Clergymen's sore throat.
Chronic—Indigestion.
Contractures of muscles of stomach on left or throat on right. See U. C. P.-A. P.-S. P.-P. P.
Cornea—Affections of; ulcers of. See M. C. P.
Cough—Stomach and throat whooping. See U. A. P.-A. P.-Lu. P.-Spl. P. Also General Diseases.
Cramps—Stomach. See U. Cer. P.-U. A. P.-A. P.-C. P.-P. P.-L. P. P.
Croup—Dry, loose, painful, false, true or spasmodic.
Dandruff—Nerves are often traceable in this disease to and over the scalp. On right side. In combination with K. P. See K. P.
Dilatation—Of the stomach.
Diphtheroid sore throat on right side.
Diphtheria—On right side.

- Diphtheritic membrane.*
Diplopia—R. S.
Diseases—Of the digestive system. (Intestines excepted).
Diseases—Of the stomach.
Diseases—Of the throat.
Dizziness—Pressures on right side. See also At. P. and M. C. P.
Dipsomania—In combination with At. P. and K. P. See At. P. and K. P.
Dropsy—Hydrophthalmia — eyeballs. In combination with K. P.
Dropsy—Fistula lacrymalis, in combination with K. P.
Dyspepsia—Any phase.
Dysphagia—On right side.
Dystrophies—If confined to intestinal tract from pylorus down. See also A. P.-K. P.-L. P.-C. P.
Elephantiasis—Lips. See also Ax. P.-M. C. P.-U. A. P.-A. P.-C. P.-P. P.
Enlargement—Of the tonsils, uvula.
Enophthalmos.
Eructations—Adjust to left side.
Esophagus—Acute or chronic inflammation, cancer, dilatation, rupture, spasms, stricture or ulcerations of; adjust to right side.
Exophthalmic Goitre—Can be easily and accurately traced to S. P. from right side to thyroid glands. Adjust to right side.
Exophthalmos—Of one or both eyes. Same side as goitre.
Eye, crossed, protrusion of. See also M. C. P. and K. P.
Eyeball.
Eyestrain—Irregular or spasmodic movements of.
Gas—Of stomach. See also P. P.
Gas—On the stomach.
Gastralgia.
Gastrectasia.
Gastric Juice—See Spl. P.
Gastric Neuroses.
Gastritis—Acute or chronic catarrh of; atrophic or sclerotic, acute or chronic gastric ulcer, phlegomonous or suppurative, or any other combination of gastric symptoms.
Gastro—Doudenitis; the gastric portion of. See Spl. P.
Gastrodynia.
Gastroptosis.
Gland—Thyroid—Parotid—Tumors of; diseases of either.
Glossitis—On right side.
Goitre—Exophthalmic, simple.
Graves' Disease—See goitre.
Gullet, stricture of.
Haematemesis.
Hair—Color, absence of; loss of.
Headache—"Sick"—on right side. See also At. P.-M. C. P.-P. P. General Diseases.

Headache—We have a peculiar combination of headaches: Neuralgic headache, sick headache; nervous headache. I wish to emphasize the idea that dizziness is but a form of headache—a mild form. If the equation for neuralgic headache would be 40%, then dizziness would be 10% pressure, both sublaxations being At. P.

Heartburn.

Haemorrhage—Stomach. See also At. P.-M. C. P.-A. P.-Lu. P. P. P.-K. P.

Herpes—Of Pharynx.

Heterophoria.

Hiccough—If spasmodic contractions of stomach. See Spl. P.

Hippus.

Hoarseness—Esophageal.

Hyperaesthesia—Gastric. See also General Diseases and M. C. P.

Hyperphoria—Right side.

Hypersecretion—Gastric juice, salivary fluid, in combination with K. P. See K. P. also C. P.-S. P.-Spl. P.-Li. P.-K. P.-P. P.

Infraction—Gastric. Mischief begins here or in small intestines; cause is located accordingly. See Spl. P.

Indigestion—Acute or chronic.

Inflammation—Of the Stomach.

Intercostal Spaces—If a lower zone than C. P. See also Lu. P.-Li. P.-C. P. and Spl. P.

Laryngeal Paralysis—Vertigo, inflammation of; acute or chronic catarrh of; syphilitic, tuberculosis, tumors of. Right side.

Larynx—Affections of; catarrh of; tumors of. Rarely but occasionally you might find sublaxation at L. C. P. See L. C. P.

Lips—Foam on; herpes, fissures, chancre, epithelioma of; swelling of; twitching unilateral deviation of; on right side.

Loss of speech, voice. See Aphasia.

Megaloglossia.

Megalogastrica.

Membrane—Mucous of digestive tract superior to pylorus of stomach, false. On right side. See also At. P.-M. C. P.-S. P.-Spl. P.-P. P. and General Diseases.

Metallic Voice—On right side.

Monoplegia—Glossoplegia. See also General Diseases and S.P.

"Morning Sickness"—Although considered a symptom of pregnancy, many men and women (not pregnant) have the same symptoms. Adjust here, whether pregnant or not, male or female.

Morphine Habit—In combination with At. P.

Habits are the expression of a demand upon the part of Innate through her body for something to supply an absence. The morphine, cocaine, liquor, or tobacco, or any other habit, is but the gratifying of an appetite. An appetite is the sign of a necessity for a chemical which is not being created. It were better to gratify an appetite than to choke it, but far better yet to adjust the cause of

that specific locality which is abnormal, and create a demand for a chemical which is not being supplied internally, therefore must be supplied externally.

Motor Power of Stomach—Passing out left side of S. P., proceeding in a circling manner to stomach.

Mouth—Diseases of; bitter taste in; soreness inside of; tumors of; foaming from; bleeding from; in the majority of cases due to lack of current being transmitted over nerves passing outward through right side of S. P. The minority have subluxations at fifth and sixth cervical. See M. C. P. and K. P.

Mucus—In gastric contents.

Mumps—Right side adjustment.

Muscles—Ocular atrophy, hypertrophy or paralysis of. See also General Diseases A. P.-P. P.-L. P. P.

Muscular Cramps—Of stomach. See also General Diseases A. A. and L. P. P.

Mutism—Adjust to right side.

"Nervous" (?) dyspepsia. I know of no other when it is realized that all digestion is performed by the execution of mental impulses that have been so transmitted by nerves.

"Nervous" (?) eructations. See *"Nervous" (?) dyspepsia.*

"Nervous" (?) vomiting. See *"Nervous" (?) dyspepsia.*

Nystagmus—One or both eyes, one or both sides.

Ocular Muscles—Insufficiencies of. See At. P.

Oculo-motor paralysis.

Odor of Breath—Of vomitus, abnormal.

Omentum—Gastric, omentum majus, cordlike, prolapsus of, dropsy of, etc. See Spl. P.-U. P. P.

Ophthalmoplegia—One or more muscles. See also U. C. P.

Oppression—Stomach. See Lu. P. and H. P.

Organ of digestion.

Pain in stomach (Gastrodynia).

Palate—Anæsthesia.

Paralysis—Of vocal cords, diphtheritic, laryngeal. See General Diseases, M. C. P. C. P.-Spl. P.-K. P.-P. P.-L. P. P.

Parotid Gland—Tumors, acute or chronic, functions of, etc. Right side.

Parotitis—Chronic or acute, suppurative, etc.

Parrot's ulcer of hard palate.

Pepsin—Absence of; excess of.

Periodic Vomiting.

Peristaltic unrest—If inferior to pylorus. See U. P.-U. P. P. and L. P. P.

Pertussis—Right side.

Pharyngitis—Acute or chronic, diseases of.

Pharynx—Adenoids of; retropharyngeal abscess of; ulcers in. On right side.

Phlegmonous gastritis.

Pneumotosis—Of stomach. See P. P.

Pylorus—Hypertrophic stenosis of; incompetency of; spasm of.

Pyrosis.

Quinsy—Right side.

Raspberry tongue.

Regurgitation—Of food. See also H. P.-M. C. P. and Lu. P.

Retinitis—one or both eyes.

Retropharyngeal abscess.

"Rheumatism"—Stomach, muscles of. See General Diseases, also U. A. P.-A. P.-C. P.-K. P.-U. P. P.-P. P.-L. P. P.

Salivary Glands—Diseases of: right side.

Salivation—Excessive or lack of

"Seborrhœa Capitis"—See Dandruff.

Sick Headache.

Sore Throat, clergyman's, diphtheria, laryngitis, tonsilitis, etc. On right side.

Speech—Oftentimes in combination with M. C. P. See M. C. P.

Splanchoptosis—Stomach. See General Diseases, also Li. P.-Spl. P.-K. P.-P. P.

Sputum—Excrescence or spit from the mouth. If forward in throat or stomach, adjust here. See also Lu. P.-M. C. P.

Stenosis—Pyloric. See also H. P.-M. C. P.-Lu. P.

Stomach—Cancer (carcinoma), dilatation of; neurosis of; excessive acidity of; excessive alkalies of; mucus in; excessive contraction of; inflation of; pain of; prolapse of; abnormal relaxation of; spasms of; tumor of; gastritis of; ulcers of; indigestion, dyspepsia, burning in pit of; fullness of; gnawing pain of; splashing feelings from; tenderness over; "Neuralgia" of.

Stomach disorders, cough, etc.

Stomatitis—Follicular, catarrhal, gangrenous, ulcerative, uræmic, in combination with K. P.

Strabismus—This is the usual place for this disease, but occasionally M. C. P. will be the physical representative of the cause.

Stuttering—Right side.

Stammering—See Stuttering.

Suppurative Gastritis.

Suppurative Tonsilitis.

Swallowing—Difficulty in.

Tapeworm—Stomach—parasite living upon undigested foods. See Spl. P.

Taste—Disorders of; impressions of, etc.

Thirst—The local power is transmitted through nerves that pass out through right side of S. P. See also K. P.

Throat—Tickling of; soreness of; ulcers of; inflammation of, etc. See also L. C. P.

Thrush.

Thyroid Gland—Diseases of; enlargement of; or atrophy of.

Tongue—Atrophy of; beefy, tie, excessive color of; lack or excessive pigmentation of; eczema of; enlargement of; leucoplakia of; psoriasis of; smoker's; patch, raspberry, strawberry of; biting of; "brown taste," coated or dryness of.

Tonsil—Inflammation, enlargement, or white spots on; or other diseases of—on right side, chronic follicular, phlegmonous, exudate on; swelling and ulceration of.

Tuberculosis—Of alimentary canal; of larynx. See General Diseases.

Tuberculosis—Of alimentary canal, superior to pyloric orifice.

Tumors—Of larynx, mouth.

Ulcer—Of stomach, of lips, of tongue. In combination with K. P. See K. P.

Ulcers—Of cornea or pharynx, right side. In combination with K. P. See Ulcer.

Uvula—Swelling of; inflammation of; other diseases of.

Vertigo—Where "sick vertigo," adjust here. See also At. P.

Vision—Double; strabismus, on right side.

Vocal Chords—Paralysis of; atrophy or hypertrophy of, etc.

Vocal Fremitus—Increase or absence of.

Voice—Hoarseness of; huskiness of; loss of; weakness of.

Vomiting—In pregnancy.

Vomit—Character and amount of; green and yellow color of; odor of; parasites in; black, bloody, coffee grounds like; pus in. Much depends upon the nine primary functions of stomach as to whether the above does or does not exist.

Water—Brash.

White—Spots in throat.

Whooping Cough.

Xerostomia.

SEVENTH, EIGHTH, NINTH DORSAL—Spl. P.

Acne in this region combined with K. P.

Ague.

Breathing—Diaphragmatic, Jerky, Stertorous, Stridulous, wavy, irregularity of; spasmodic action of.

Calculi of pancreas.

Catarrh, of spleen, of intestines. See also M. C. P.-S. P.-U. P. P.-P. P.-L. P. P.

"*Child Crowing*"—If diaphragm contracts abnormally. See same under S. P.

Chronic—Inflammation of the spleen.

Cough—Where the contractions are purely diaphragmatic. See U. A. P.-A. P.-Lu. P.-S. P. and General Diseases.

Cyst—Pancreas. See also I.i. P.-K. P.-U. P. P.-P. P.

Diaphragm—Paralysis of.

Diaphragmatic hernia.

Diseases—Of spleen.

Diseases—Of intestines.

- Dullness*—Over spleen. See also At. P.-H. P. and Lu. P.
- Duodenal ulcer.*
- Duodenitis.*
- Gastric Juice*—Acidity of; quantity of; is determined by the condition of this gland.
- Gastro*—Duodenitis; the duodenal portion of. See S. P.
- Gland*—Thymus; diseases of. See Lu. P.-S. P.-L. P. P.
- Hernia*—Diaphragmatic.
- Hiccoughs*—If spasmodic contractions of diaphragm.
- Hypersecretion*—Splenic fluid. In combination with K. P. See K. P. and A. P.-H. P.-C. P.-S. P.-Li. P.-K. P.-P. P.
- Hypertrophy*—Of spleen. In combination with K. P.
- Infraction*—See S. P.
- Intercostal Spaces*—If a lower zone than S. P. See also Lu. P.-Li. P.-C. P. and S. P.
- Intestinal Obstructions*—Worms.
- Intestines*—Acute obstruction of; carcinoma of; diminished sensibility of; neuroses of; strangulation of; ulceration of; ulcers of; diseases of; strictures of; tumor of; pain of when disease is present; tuberculosis of, etc.
- Intestinal hæmorrhage, perforation or ulcers.*
- Intussusception*—Of the intestines.
- Lientery.*
- Megalocælia.*
- Membrane*—Mucous, of intestines.
- Meteorism*—If in the mesenteries direct.
- "Neuralgia"*—See General Diseases; intercostal of an inferior zone. See also At. P.-M. C. P.-P. P.-L. P. P.
- Obstruction*—Intestinal, from stricture, tumor, impacted feces, or paresis of muscular walls. See also Li. P. and A. P.
- Omentum*—Cordlike, prolapsus of; dropsy of, etc. See also S. P. and U. P. P.
- Pancreas*—Carcinoma of; cyst of; disease of; hemorrhages into; pain of; calculi of.
- Pancreatitis*—Acute or chronic, gangrenous, hemorrhagic, suppurative.
- Paralysis*—Of diaphragm. See General Diseases.
- Pin Worm*—Oxyuris vermicularis.
- Respiration*, absent, diaphragmatic harsh, jerking, stertorous, abnormal frequency of; stridulous, simple irregularity of.
- Splanchnoptosis*—Spleen and intestines.
- Splenotosis*—See Splanchnoptosis.
- Spleen and liver*, combined enlargement of, in combination with similar functions, at Li. P.
- Spleen*—Enlargement of; displacement of; enlarged, abscess and growths of; pain of; rupture of; tuberculosis of.

Tapeworm—See S. P.

Thread Worms.

Tuberculosis—Of intestines, or spleen. See General Diseases.

Ulcer—Duodenal. In combination with K. P. See K. P.

Ulcers—Of intestines. In combination with K. P. See K. P.

Umbilicus—Hernia through, etc.

Vater—*Ampulla of*; disease of.

Volvulus—(Intussusception) Intestinorum.

TENTH, ELEVENTH, TWELFTH DORSAL—K. P.

When you realize the important phase and important connection that K. P. has with the pathological conditions in the human body, especially in those phases of serous circulation having to do with so many of the secretions and excretions of the body, you immediately grasp the idea that it is a most important locality; and let us bear in mind that it often works in combination with other things.

Acute Bright's Disease.

Addison's Disease.

Anasarca—In combination with C. P. See C. P.

Any disease of the adrenals.

Albuminuria—Abnormal albumen in urine.

All kinds of acne combined with local subluxation.

Amyloid Kidneys.

Anuresis.

Ascites—In combination with P. P. See P. P.

Baldness—In combination with S. P. See S. P.

Barber's Itch—In combination with M. C. P. See M. C. P.

Blackheads—In combination with any other local subluxation.

Blepharitis.

Bleeding—From the urinary organs. See also M. C. P.-Lu. P.-S. P. and P. P.

Brick dust deposit in urine.

Bright's Disease—Acute, chronic.

Calculi—Renal.

Calculi—By processes of elimination heat and adding compression, we can resolve steam into an ice ball by the following analysis: Steam, Water, Snow Flakes, Snow, Snow Ball, Ice Ball.

Opposite this in the human body, by process of addition of heat and slight added compression to urine, and we have urea crystals, and by continued compression and condensation we have calculi.

Cataract—Of one or both eyes. (In combination with M.C.P.)

Chickenpox—In combination with fifth cervical.

Chloasma—Adjust here whether general, as brought out under C. P., or specific, as indicated under "General Disease." See same under the above.

Chlorosis.

Chloerine—In combination with P. P. See same there.

Cholera Infantum—In combination with P. P. See same there.

Chronic—Diarrhœa (as a combination with P. P.).

Chyluria.

Cold—To have depends upon combustional materials, oxygen and spark. Serous circulation conveys the materials (gasoline), blood conveys oxygen, and efferent nerves convey mental calorific impulses—combination is heat. Too much material floods, lack of means cold. See also L. P. P.-C. and A. P.

Colic—Renal. See same under Li. P.-P. P. and always as a combination maker with the hepatic or intestinal types.

Coma—Diabetic, sunstroke, uræmic. See same under At. P. H. P.

Costiveness of Bowels—In combination with P. P. See P. P.

Convulsions—Uræmic. See same under Ax. P.-C. P.-P. P.

Cyst, Kidney—See also Li. P.-Spl. P.-P. P.-K. P.-P. P.-U. P. P.

Dandruff—In combination with S. P. See S. P.

Diabetes Insipidus.

Diabetes Mellitus.

Diaceturia.

Diarrhœa—In combination with any P. P.

Dipsomania—In combination with At. P. and S. P.

Diseases—Of kidneys.

Disease—Addison's.

Disease—Fish skin, as a combination with local subluxation

Disorders—Of urination.

Dropsy—Hydronephrosis. See also same under At. P.-H. P.-Li. P.-C. P.-Lu. P.-S. P.-P. P.-L. P. P.

Drowsiness—(See At. P.)

"Dry Mouth"—(In combination with S. P.)

Dry Tetters—K. P. as a combination with a local zone.

Dysentery—In combination with U. R. P. See U. R. P.

Dystrophies—If locally affecting the kidneys, or involving that most general, P. important function of serous circulation. See also A. P.-S. P. and L. P. P.-C. P.

Epiphora.

Epithelioma of Eyelid—In combination with M. C. P. See M. C. P.

Eruptions—Serous circulation and the transformed watery deposit therefrom, where in lack of, involves primarily this place. See "General Diseases" and C. P.

Eruptive Fevers—Adjust here as a combination with local subluxation with local zone involved. See General Diseases.

Erysipelas—No matter where, adjust here as a combination with local zone involved. See General Diseases.

Eye—Dryness and moisture of; epithelioma of; swelling and puffiness of; verruca upon; redness of; costiveness of; watery stool of; in combination with.

- Frequency* in urination.
- Galacturia*.
- Glaucoma*.
- Gleet*—In combination with K. P. See K. P.
- Glossy Skin*.
- Glycosturia*.
- "Gravel"*—If formed in kidneys. See also P. P.
- Granular Eyelids*.
- Gum*—Sores of; spongy.
- Hæmaturia*—Of kidneys.
- Hand*—Excessive sweating of. Also U. A. P. and A. P.
- Hæmorrhage*—Renal.
- Heat Rash*—Where general or local. See also C. P.
- Hydatids*—In all cysts, no matter where located, serous circulation, locally or generally, is abnormal, hence this point needs attending to. See also At. P. Li. P.-Lu. P.-K. P.
- Hydroencephalocoele*—In combination with At. P. See At. P.
- Hydrocephalus*—In combination with At. P. See At. P.
- Hydronephrosis*.
- Hydrothorax*—In combination with U. H. P.-Lu. P. or Li. P.
- Hypersecretion*—General uræic or urine, involving serous circulation in part or general. This in combination with this disease in any tissue, to any degree or locality.
- Hypertrophy*—Inasmuch as serous circulation involves the circulation of nutritive soluble substances, and this disease represents its excess, this is a center for the regulation of that function. The quantity of impulses determines quantity and quality.
- Hypochondrium*—Bulging of.
- Icterus*—In combination with Li. P. See Li. P.
- Inflammation of some local area*, as in all eruptive symptoms, K. P. acts as a combination.
- Insipidus*—Diabetes.
- Influenza*—In combination with M. C. P., and also see M. C. P. and C. P.
- Jaundice*—In combination with Li. P. See Li. P.
- Kidney*—Ainyloid; congestion of; cyst of; diseases of; enlarged; pain of; abscess of; tuberculosis of; tumors of; hydatids of; syphilis of; colic of; stones of.
- Kidneys*—Inflammation of; colic of.
- Knee*—"Housemaid's." In combination with P. P. See P. P.
- Lactosuria*.
- Lead Poisoning*—Serous circulation is primary involved in any poisoning condition, whether accidental or forced, through the lungs, stomach, or any other portion of the body, when injected.

Lice are scavengers. Lack of general nutrition (through serous circulation), combined with excessive heat, creates eczema in many forms. K. P. is always in combination with At. P.-C. P. and P. P. in those respective places. See At. P.-C. P. and P. P. and General Diseases.

Lids—Granular.

Lipaciduria.

Lipuria.

Liver—Many diseases in combination with. See also Li. P.

Locomotor Ataxia—In combination with At. P.-Ax. P. and P. P.

Measles—In combination with M. C. P. See also M. C. P.

Meningocele—Whether spinal or cerebral, K. P. is involved in the circulation of fluids. See At. P. and K. P.

Moisture of Skin depends upon the quality of excretion, which should be normal, and the circulation of watery serum. If local action is abnormal, too much or not enough, or the kidneys are drawing from excessively, the skin will be dry ; if the opposite, then like cause, like effects.

Morbus Cæruleus.

Mouth—Dryness in. See Moisture of Skin. Also S. P. and M. C. P.

Movable or floating kidneys, one or both.

Nephritis—Acute, chronic, or inflammatory condition in.

Nephrolithiasis.

Nephroptosis.

Obesity—If general, in combination with C. P. See General Diseases and C. P.

Oliguria.

Organs of Excretion—Of all that are liquids. See General Diseases.

Pallor of Skin—Involving serous circulation.

Paralysis—Agitans. In combination with the local zone involved.

Pemphigus—In combination with local area.

Peptonuria.

Perinephritic Abscess—Actonuria. Uric acid in excess.

Peritoneum—Lubrication of. See also U. P. P.-P. P. and L. P. P.

Phosphaturia.

Polyuria.

Psoriasis—Local zone in combination.

Pustule—Always in combination with local or C. P. For general subluxations, see General Diseases and C. P.

Pyelitis—Urinein. See P. P.

Pyelonephrosis.

Pyuria.

Rachitis—In combination with C. P. See C. P. and General Diseases.

Rashes—If general or local, always adjust this as a combination.

Redness or any other coloring pigment in excess, or lack of, in any tissue or the body receives its matter, from which the various pigments are made, from the serous circulation.

Renal Diseases—Insufficiency of.

Rennin—Absence or excess of.

"Rheumatism"—See General Diseases. Oftentimes more than one form or kind of incoördination exists with another. When that condition exists with this misnomer, then its external appearance changes, in so far as you have two causes bringing in two different effects, which, due to location or character, join into one—one name for two individual symptoms. K. P. is always in combination with acute or local rheumatism. See also U. A. P.-A. P.-C. P.-S. P.-U. P. P.-P. P.-L. P. P.

Rickets—See Richitis and also C. P.

Rubella—See scarlatina; measles.

Rubeola—Local or general. In combination with local subluxations.

Scarlatina—The foundation for the eruptions arises at this specific spot. The fever may have subluxation at two places, viz., M. C. P. and C. P.

Scarlet Fever—In combination with M. C. P. and C. P.

Scarlet Fever—See Scarlatina. Too often physicians of all schools haggle over detail, while the patient dies. Cause is first importance. Various degrees of pressure makes result vary accordingly. Adjust cause and effects, regardless of degree, cease.

Seborrhæa—involving serous circulation. If general, adjust C. P. as a combination. If local, adjust accordingly in combination with K. P. See C. P.

Septicæmia in serous circulation.

Seroedæma.

Serous Stools—In combination with L. P. P. See L. P. P.

Serous Meningitis—Spinal. See At. P.

Skin Dry, or Liquid Disease Of—See C. P. In either the local or general, K. P. is always more or less in combination.

Smallpox—In all eruptive fevers, we find this place primarily very active, hence not sufficient liquids to sustain that issue in its metabolism.

Sordes—In combination with M. C. P. See M. C. P.

Splanchnoptosis—Floating kidney or kidneys. See General Diseases. Also Li. P.-S. P.-Spl. P. and P. P.

Squint—Squinting eyelids are found with those diseases where the eyelids are affected with dryness.

Stone in the Kidneys.

Stool—If watery, in combination with U. P. P.-P. P.-L. P. P.

Sudamina.

Sugar in the urine.

Sunstroke—See Heatstroke, under At. P. A condition of lack

of secretion or too great a secretion, usually local about the head, although whole body is more or less the same. See also At. P.

Summer Complaint—(Cholera Infantum.) In combination with P. P. See P. P.

Suprarenal Capsules—Tuberculosis of; other diseases of.

Sweat—Amount and color of. This place controls the excretion of the entire liquid body. If excessive, sweat is almost unknown; if abnormal in lack of quantity, then sweat is excessive.

Sweating—Night or day; hot or cold, if not normal in quantity; quality or odor. If local, K. P. in combination with local area.

Supplies—Always in combination with P. P.-Li. P.

Swelling of hands or arms. In combination with A. P.

Swelling of feet. In combination with L. P. P. See A. P. and L. P. P.

Thirst—If excessive urination exists, thirst is one of the general symptoms. See S. P.

Trophi—Dependent upon a lack of serum in proper constituency. Serous circulation involved in eyelid.

Tuberculosis of kidneys. Suprarenal capsules. See General Diseases.

Ulcer—Too much or a lack of serum, or urea, means much in combination with all conditions where pus is formed in greater or less quantity. See Spl. P.-L. P. P.

Ulcers—See Ulcer.

Uræmia—The condition so known is one of the primary and simple diseases following the lack of normal flow of urine. The name does not express the quantity.

Uridrosis—Another noticeable abnormality of serous circulation where urea is secreted into a urine but is not excreted except back into the systemic serous circulation.

Urine—Abnormal color; odor or consistence of; diabetes insipidus; diabetes mellitus in renal cancer; renal calculus; in renal tuberculosis; in uræmia; albumen in; increased amount; retention of.

Urination—Frequent.

Urinary Organs—Bleeding from.

Urination—Disorders of.

Urine—Incontinence of; retention of; sugar in.

Urticaria—Local zone subluxation is always in combination with this one.

Water on the brain. In combination with At. P. See At. P.

FIRST AND SECOND LUMBAR—U. P. P.

All of these diseases are forms of idleness of function, and consequently could be considered under the common head of mechanical disorders—mechanical effects following a lack of function. After all has been said and done, should a patient come to you and say she had an abscess of the left ovary, you immediately think U. P. P.; or another says, "I have appendicitis," and you also think U. P. P.; another complains of dysentery, diarrhoea, or

constipation, and you also think of U. P. P. and K. P. in combination, perhaps. With enteritis, insusception, tuberculosis of the bowels, etc., you should think U. P. P., regardless of the name or conditions—the zone affected will tell you where to adjust.

Where the effect is, there is the cause, and no matter how many symptoms, you adjust the cause; symptoms take care of themselves. One point I see in favor of learning symptomatology is to let the physician know that you are just as foolish as he. The first point you gain is knowing where the cause is, and the second is what you may gain in the physician's estimation, if anything. All the conditions we may be able to analyze can be resolved back to questions of idleness.

Abscess of ovary.

Abdominal Muscles—Prolapsus, atrophy, etc., of.

Acne of this region combined with K. P.

Apthæ—Where confined to intestines.

Appendicitis—Adjustment to right side, unless specific subluxation justifies otherwise.

Ascaris.

Carcinoma of intestines or peritoneum.

Catarrh of intestines (lower zone); of bowels. See also M. C. P.-S. P.-Spl. P.-U. P. P.-P. P.-L. P. P.

Cestodes—Intestinal.

Child Bed—Diseases of.

Child Bed—Fever.

Chronic—Peritonitis; if of a superior zone.

Colitis.

Colon—Cordlike; dilatation of.

Constipation—See P. P. and R. P. See At. P.

Costiveness—T.

Cyst—Mesenteric; ovarian; uterine. See also Li. P.-K. P.-Spl. P.-P. P.

Diarrhæa—In combination with K. P.

Disorders of bowels; superior zone. See P. P. and L. P. P.

Dropsy, Ascites—In combination with K. P.

Dropsy—Hydroarion. In combination with K. P.

Dysmenorrhæa—See also P. P. and R. P.

Enteralgia—Where in a high zone of the intestines. See also P. P. and R. P.

Enteritis—Acute or catarrhal chronic; croupous; diphtheritic; membranous; phlegmonous; varieties of; in infancy and childhood; with peritoneal symptoms.

Enterocolitis—Acute or chronic.

Enteroptosis of a superior zone of the abdomen. See also P. P. and L. P. P.

Fæces—Obstruction of, incontinence of, and water stool of, are combinations. See also P. P.

Intussusception—Ileo-cæcal ileoclic; ileol; colic. See P. P.

Joint—Hip; stiffness and pain in, etc. See General Diseases. U. A. P.-A. P.-U. P. P.-P. P.-L. P. P.

Leg—Miscellaneous abnormal signs; symptoms connected with; peripheral palsies of; varicose veins of. See also P. P. and L. P. P.

Lumbago—See also P. P. and L. P. P.

Meralgia—Femoral, crural or lumbæ-abdominal pains of this type.

Morbus Coxæ Seniles—One or both sides.

"Neuralgia"—Lumbo-abdominal. See General Diseases. Also At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-C. P.-Spl. P.-P. P.-L. P. P.

Peritonitis—Acute, chronic, etc.; if of a superior zone. See P. P. and L. P. P.

"Rheumatism"—Hips; muscles of; joints of. See General Diseases. Also U. A. P.-A. P.-C. P.-S. P.-K. P.-P. P. and L. P. P.

Stool—Mucus in; straining at; tarry; white; if of a superior bowel origin; watery. In combination with K. P. See also P. P.-L. P. P.-K. P.

Stiffness of Thigh—See also P. P.-L. P. P.-K. P.

Subphrenic Peritonitis (Abscess).

Tuberculosis of peritoneum. See General Diseases.

Tumors—Abdominal; if of a superior zone. See P. P.-L. P. P.-At. P. and K. P.

Ureter—Tuberculosis of; constriction of.

SECOND, THIRD, FOURTH LUMBAR—P. P. or U. R. P.

Abdomen—Pain in; distention; enlarged arteries of wall of; varicose veins of; retraction of; rigid recti muscles of.

Abortion—Where following subluxations.

Abscess—Vulva. See also Lu. P.-Li. P.

Acne of this zone combined with K. P.

After Pains.

Amenorrhæa.

Appendicitis—Pressure on right side.

Apthæ—Where confined to bowels.

Ascites—In combination with K. P. See K. P.

Astasia Abasia.

Ataxia—(Locomotor). In connection with At. P. and C. P. See At. P. and C. P.

Barrenness.

*Bedsore*s—In combination with K. P.

Bladder—Cancer or tuberculosis of; pain of; inflammation or irritation of; strictures at; openings of; bladder stones of; acute catarrh of.

Bleeding from the bowels. See also M. C. P.-S. P.-P. P.-K. P. and Lu. P.

Bloody Flux.

Bowels—Bleeding from; consumption of; inflammation of; tuberculosis of; other disorders of; etc.

Bubo.

Bowels—Hæmorrhage of.

Calf of Leg—Depletion or elephantiasis of.

- Cancer* of the uterus.
Carcinoma of rectum.
Catarrh of uterus. See also M. C. P.-S. P.-Spl. P.-U. P. P.-L. P. P.
Cessation of Menstruation.
Cholerine—In combination with K. P.
Cholera Infantum—In combination with K. P.
Chorea—In combination with Atlas. See At. P.
Chordee.
Chronic Diarrhæa—In combination with K. P.
Chronic Dysentery—In combination with K. P.
Chronic Enlargement of the Womb.
Chronic Inflammation of the Womb.
Chronic Peritonitis—If of a medium zone. See U. P. P. and L. P. P.
Chronic "Rheumatism" of the limbs.
Clap.
Colic—Appendicular; flatulent; intestinal; mucous. See same under K. P.-Li. P.
Constipation—In the infant.; of pregnancy. See U. P. P.-R. P. and At. P.
Consumption of the bowels.
Contractions of the Womb—Abnormal.
Contractures of muscles of abdomen, as cramps, etc. See same under U. C. P.-A. P.-S. P.
Convulsions—Puerperal. See same under Ax. P.-C. P.-K. P.-P. P.
Costiveness—In combination with K. P. See K. P.
Cramps during menstruation; abdominal; calves of legs. See U. Cer. P.-U. A. P.-C. P.-S. P. L. P. P.
Cyst—Bladder. See also Li. P.-Spl. P.-K. P.-U. P. P.
Diarrhæa—Acute, chronic, in infants or pregnancy. In Combination with K. P. See K. P.
Diseases of child bed.
Diseases of ovaries.
Diseases of pregnancy.
Diseases of the vulva.
Diseases of the womb.
Dropsy—Hydro-pysolpinx. In combination with K. P.
Dysentery—In combination with K. P.
Dysmenorrhæa—See also U. P. P.-R. P.
Eczema of the vulva.
Elephantiasis—Legs, pelvis, scrotum, labiæ, etc. See also Ax. P.-M. C. P.-U. A. P.-A. P.-C. P.-S. P.-P. P.
Emissions—Seminal.
Enlargement of the womb.
Enteritis—Middle zone. See also U. P. P. and L. P. P.
Enteroptosis—Middle zone. See also U. P. P. and L. P. P.
Epilepsy—In combination with At. P. See At. P.
Fæces—See same under U. P. P. Also K. P. and R. P.

Fallopian Tubes—Construction of; lack of development of; inflammation of; tuberculosis of; any abnormal function of.

Females—See Males.

Femur—Peritonitis of, in one or both legs.

Festation.

Fibroid tumors of the womb.

Fissure of the anus.

Flexions of the womb.

Flooding from Ovaries, fallopian tubes, uterus, or vagina. See Hæmorrhage.

Flux—Bloody

Fornication and itchings in genitals.

Genitalia—Pain of; any symptom of, in male or female.

Gestation—Abnormal.

Gleet—In connection with K. P.

Gonorrhœa—Male or female. Always in combination with K. P., whether local or general, involving serous circulation.

"Gravel"—If formed in bladder. See also K. P.

Groin—Enlarged glands in hernia of; swelling of.

Headache—"Periodic"; base of skull. See also At. P. M. C. P.-S. P. and General Diseases.

Hæmaturia—Of bladder. See also At. P.-M. C. P. and S. P.

Hæmorrhage—Vaginal, intestines, "flowing," etc. See also At. P.-M. C. P.-A. P.-Lu. P.-C. P.-S. P.-K. P.

Hernia—Abdominal; inguinal, scrotal, strangulated.

Hip Joint Disease.

Housemaid's Knee—Either sex.

Hydrocele—In combination with K. P. See K. P.

Hypertrophy—Of bladder, intestines, or uterus. In combination with K. P. See K. P. and also A. P.-H. P.-C. P.-Spl. P.-P. P.-L. P. P.

Immobility—As in paraplegia. See General Diseases. Also A. P. and C. P.

Imperfect Sexual Development.

Impotency—See also U. P. P.

Incontinence—Of urine; inability of walls of the bladder to perform their normal functions.

Inflammation—Of womb; periuterine; of the bladder; of the bowels (see also U. P. P. and L. P. P.); of the vulva and labiæ.

Intussusception—Colico-rectal. See also U. P. P.

Involution of the Womb.

Itching of the vulva.

Joint—Knee; disease of. See General Diseases, U. A. P.-A. P.-U. P. P.-L. P. P.

Knee Pain—One or both legs.

Knee, Housemaid's—In combination with K. P. See K. P.

Labor Pains.

Lead Poisoning—In combination with K. P. See K. P.

Leg—See U. P. P.

Leucorrhœa—(Whites).

Lice—Pediculus pubio. See At.-P. Ax. P. and K. P.

Limbs—See Legs.

Lumbago—See also U. P. and L. P.

Making Water—Difficulty in; frequency in.

Males—Sexual disease most common in; sterility of. See Females.

Mau-bound—See constipation.

Membrane—Mucous; of bowels. See also At. P.-M. C. P.-Spl. P.-S. P. and General Diseases.

Menorrhagia—Where excessive or lack of; considered as a symptom.

Menstruation—Painful; too frequent; suppression of; clotted; bad smelling.

Meteorism—If of a medium zone of the bowels. See U. P. P. and L. P. P.

Metorrhagia.

Mysentery—Diseases of. See Spl. P.

Miscarriage—Accidental or continual.

"Morning Sickness"—See S. P.

Muscles—Atrophy; hypertrophy or paralysis of calf. See also General Diseases, A. P.-S. P.-and L. P. P.

Myoclonia of limbs. See also U. A. P. and A. P.

"Neuralgia"—Lumbo-abdominal; rectal or pubic. See General Diseases. Also At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-C. P.-Spl. P.-U. P. P.-L. P. P.

Onanism.

Organs of Excretion—Of all that is solids. See also General Diseases and K. P.

Ovaries—Tuberculosis of; prolapsus of; abscess of; tumors of; any diseases of; etc.

Painful Menstruation.

Palsies—Peripheral of leg. See M. C. P. and A. P.

Paralysis—Paraplegia; of lumbar nerves. See General Diseases, M. C. P.-C. P.-S. P.-Spl. P.-K. P.-L. P. P.

Peristaltic Unrest—If of a medium abdominal zone. See S. P.-U. P. P. and L. P. P.

Peritoneum—See U. P. P. and L. P. P.

Peritonitis—See U. P. P. and L. P. P.

Perityphlitis on right side.

Peri—Uterine inflammation.

Piles—Bleeding; protruding; itching; blind; during pregnancy.

Placenta Prævia.

Polyyps of the Uterus.

Pox—See poisons under General Diseases.

Pneumatosis of bowels. See S. P.

Pregnancy—Any abnormality of; constipation during, etc.

Priapism.

Private Diseases—"Private" only so far as the lay mind is silent. A broader education is a necessity among the coming generations.

Proctitis—Male or female.

Profuse menstruation.

Prolapsus—Hernia, retroversion, flexion, etc., of the womb.

Pruritis.

Puberty and Adolescence—Diseases incident to; delayed, in male or female.

Puerperal Convulsions—See At. P.

Pyelitis, Pelvic Portion Thereof—See K. P.

Quickening Pains are abnormal. Women should go through the entire process of reproduction without pain. When Chiropractic is universal and spines are straightened, such will be the case.

Retroperitoneal Hernia.

Retroperitoneal Sarcoma.

"Rheumatism" Knee—Joints or ligaments of. See General Diseases. Also U. A. P.-A. P. C. P.-S. P.-K. P.-U. P. P.-L. P. P.

Salpingitis.

Saltatory Spasm.

Sarcoma—Retroperitoneal.

"Scaphoid" Abdomen.

"Sciatica"—See Rheumatism under U. P. P. and L. P. P.

Self-Abuse—A disease with a cause. Subluxation always precedes the expression of any "habit" which is detrimental to the body's normal metabolism.

Seminal Emissions.

Sexual Desire—Loss of.

Sexual Irritation.

Splanchnoptosis—Bowels; abdomen. See General Diseases. Also Li. P.-S. P.-Spl. P. and K. P.

Sexual Organs—Development of; lack or excess of; of any function.

Soft Chancre (venereal ulcer).

Spermatorrhœa.

Spots, Koplik's.

Stool—If of medium zone origin.

Stiffness of Knee—One or both sides. See also U. P. P. and L. P. P.

Stone in the bladder.

Stoppage of the menses.

Strangulated Hernia—Abdominal.

Summer Complaint (Cholera Infantum)—In combination with K. P. See K. P.

Suppression of the menstrual flow.

Swelling in lumbar region.

Syphilis—Secondary. In combination always with K. P. See K. P.

Sterility—Male or female.

Tenderness of abdomen. See also General Diseases, At. P.-Lu. P.-C. P.-L. P. P.

Testicles—Pendulous; syphilis; tuberculosis of; swollen, or other diseases of.

Tuberculosis—Of bladder; fallopian tubes or ovaries; prostate gland; testes. See General Diseases.

Tumors—Abdominal; if of a middle zone. See also U. P. P.-L. P. P.-At. P. and K. P.

Tumors of uterus.

Tympanites.

Typhoid Fever—Excessive heat of bowels has a local cause. In combination with C. P. See M. C. P.

Ulcer of the womb.

Ulceration of the anus.

Ulcers of the leg.

Urethra—Discharges from; inflammation of; etc.

Urination—Difficulty in passing; voiding of; abnormalities of; frequent; etc.

Urine—Incontinence of. See also K. P.

Uterine—Headaches; one of a combination of symptoms. Adjust in combination with At. P., colic.

Uterus—Cancer of; polypi of; tumors of.

Venereal Diseases—Ulcer.

Versions of womb.

Vulva—Abscess; eczema of (in combination with K. P.); excessive sensitiveness of; inflammation of; itching of.

Waddling Gait.

When Puberty Is Delayed.

Whites—In girls or adult females.

Womb—Acute or chronic enlargement of; diseases of; displacements of; falling of; inflammation of; involution of; ulcer of; versions of; other diseases of.

FOUR, FIVE LUMBAR—L. P. P. OR R. P.

Acne of this zone combined with K. P.

Acute Catarrh of bladder.

Ankle Clonus.

Anus—Fissure of.

Aphthæ—Where confined to rectum or anal opening.

Arthritis—Deformans of lower limbs or any portion thereof.

Atrophy (following paraplegia).

"*Barbadoes*" leg.

"*Bearing Down*" feeling (in abdomen).

Boils of buttocks or nates.

Bones—Diseases of ; development of ; curvatures of ; pain of ; arthritis deformans of ; elephantiasis of ; atrophy of ; etc., etc.

Catarrh—Of bowels ; lower zone ; vagina, or urethra ; of bladder. See also M. C. P.-S. P.-Spl. P.-U. P. P. and P. P.

Chancre—Soft ; chancroid.

Chronic peritonitis ; if of a low zone. See U. P. P. and P. P.

Chronic "rheumatism" of the lower limbs.

Cold Feet—In combination with K. P. See also A. P.-C. P.-L. P. P.

Clonus—Ankle.

Clubfoot.

Coldness of Feet.

Constipation—See U. P. and U. R. P. See At. P.

Constipation Headache—(See At. P.).

Cramps—Toes. See U. Cer. P.-U. A. P.-A. P.-S. P.-P. P.

Defecation—Where abnormal.

Diarrhoea—In combination always with K. P. See K. P.

Dropsy—Hydrocele. In combination with K. P.

Dysmenorrhoea—See also U. P. P.-P. P.

Dystrophies—If confined to one or both legs or portions thereof. See also A. P.-S. P.-K. P.-C. P.

Dysuria.

Enteritis—Where of a lower zone. See also U. P. P. and P. P.

Enteroptosis—Where of a lower zone. See also U. P. P. and P. P.

Epiphora Alvi—In combination with K. P. See K. P. and At. P.

Evacuation—Involuntary ; prolapsus of rectum.

Extremities—Pain in ; tenderness of.

Faeces—See same under U. P. P. Also K. P. and P. P.

Excessive sensitiveness of the vulva.

"Flat Foot."

Flatulence.

Foot—All abnormal symptoms of ; changes in shape in ; deformities of ; gangrene of ; foot drop, etc.

Gout—Depending upon the ability, or lack of ; of muscles to contract ; cross-legged ; genu varum ; genu valgum ; as abnormal in paraplegia.

Gland—Prostate ; tuberculosis of. See Lu. P.-S. P.-Spl. P.

Gout—In limbs or feet. See M. C. P.-A. P. C. P.-K. P.

Haemorrhoids (Piles)—Blind ; protruding ; itching or bleeding.

Hypertrophy of toe nails. In combination with K. P. See K. P. and A. P.-H. P.-C. P.-Spl. P.-P. P.-L. P. P.

Incontinence of Urine—Bladder mostly affected.

- Inflammation* of bowels; if low. See P. P. and U. P. P.
- Ingrowing Toenails.*
- Intermenstrual Pain.*
- Irritability* of the bladder.
- Joint*—Ankle; disease of. See also General Diseases. U. A. P.-A. P.-U. P. P.-P. P.-L. P. P.
- Leg*—Barbadoes; milk; ulcers of.
- Lumbago*—See also U. P. P. and P. P.
- Masturbation*—Male or female; adjustment restores normal calorific function; reduces itching desires, hence assumes normal.
- Maw-bound*—See constipation.
- Megalomelia.*
- Megalopodia.*
- Megalopus.*
- Menindrosis.*
- Meteorism*—If in a lower zone. See U. P. P. and P. P.
- Muscles*—Atrophy; hypertrophy or paralysis of muscles of lower leg. See General Diseases, A. P.-S. P. and P. P.
- Muscular Cramps* of lower legs and feet. See also General Diseases, A. P. and S. P.
- Nails*—Toe; diseases of; deformities of. See also A. P.
- "Neuralgia"*—Lumbo abdominal; plantar. See General Diseases, At. P.-M. C. P.-U. A. P.-A. P.-Lu. P.-C. P.-Spl. P.-U. P. P.-P. P.
- Nodes* on tibia See At. P.
- Onychia*—Toe Nails. See General Diseases, M. C. P.-C. P.-S. P.-Spl. P.-K. P. and P. P.
- Perforating ulcer* of foot.
- Peristaltic Unrest*—If of a low abdominal zone. See also S. P.-M. P. P. and P. P.
- Peritoneum*—See also U. P. P. and P. P.
- Peritonitis*—See also U. P. P. and P. P.
- Pes equinus*—Varus, valgus and calcaneous.
- Plantar "neuralgia"*; in one or both feet.
- "Proud flesh."*
- Rectum*—Carcinoma of; neuralgia of; syphilis of; prolapsus of; etc.
- Red neuralgia* of feet.
- "Rheumatism"*—Calf muscles, ankle or toe joints. See General Diseases. Also U. A. P. A. P.-C. P.-S. P.-K. P.-U. P. P.-P. P.
- Ribbon Shaped Stools.*
- Rigid Recti Muscles.*
- Sciatica*—In any form. See also P. P. and Rheumatism.
- Scrofula* of tibia or shin bone.
- Scyballae.*
- Serous Stools*—In combination with K. P. See K. P.

Spastic Gait.

Spermatorrhoea—Atonia dormientium.

Steppage Gait.

Stools—Foreign bodies or parasites in, mucus, pus, shreds, fat, excessive or lack of normal quantities. If costive or diarrhoetic look to a combination with K. P.

Stiffness of ankles or calf of leg. See also U. P. P. and P. P.

Stricture of the urethra.

Swelling of feet. In combination with K. P. See also K. P.

Tarsalgia—One or both feet.

Tenderness of extremities. See General Diseases, At. P.-Lu. P.-C. P. and P. P.

Tibia—Nodes on; periostitis of; enlargement of; sabre shaped; other diseases of; etc.

Toe—Pain or other diseases in.

Tumors—Abdominal; if of a lower zone. See also U. P. P.-P. P.-At. P. and K. P.

Ulcer of foot or feet. In combination with K. P. See K. P.

Vaginal Discharges—Inflammation of, etc.

Varicocele—One or both sides.

Wind Colic.

C. C. P.

Coccyodynia.

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